TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. 160.

HENRY W. FULLER AND ISAAC W. BARNUM, APPELLANTS,

vs.

ENOCH S. YENTZER AND WALTER SCATES.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF ILLINOIS.

FILED OCTOBER 15, 1874.

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assigns, for the term of fourteen years from the date thereof, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement and invention, a description and specification whereof are given in the words of your orator in the schedule annexed to the said letters-patent, and the designs accompanying the same, and made a part thereof, as by reference to the said letters-patent now in the possession of your orator, ready to be produced as your honors may direct, or to a true copy thereof hereto annexed marked "Schedule A," and which he prays may be
19, 20 taken as a part of this his bill of complaint, will more fully and at large appear, and to which, for greater certainty, he prays leave to refer.

And your orator further shows unto your honors that afterwards, and on about the tenth day of July, in the year one thousand eight hundred and sixty, the said Anthony W. Goodell, by an instrument of assignment made and executed under his hand and seal, bearing date on the day and year last aforesaid, and duly recorded in the office of the Commissioner of Patents, on the twelfth day of July, one thousand eight hundred and sixty, in liber V, 5, p. 311, sold, assigned, transferred, and set over to your orator, his heirs, executors, administrators, and assigns, all his right, title and interest in and to the said letters-patent,
21, 22 as will more fully and at large appear by the said instrument of assignment and the certificate of record thereon, now in the possession of your orator ready to be produced as your honors may direct, and to which, for greater certainty, he prays leave to refer.

And your orator further shows unto your honors that your orator and the said Goodell after the issuing and delivery of the said letters-patent put the said invention and improvement into use, and with great labor and at great expense created a demand for the same in the market, and they and your orator & licensees have from time to time manufactured and sold large numbers of said improvements, to wit, the number of 300 thousand and upwards, and that they and your orator have since the issue of said letters-patent until as hereinafter mentioned
23, 24 uninterruptedly enjoyed the exclusive right and liberty thereby granted, and their said exclusive right and liberty thereunder fully admitted, recognized, and allowed by the public and the trade generally, and that your orator is now the exclusive owner and possessor of the same.

And your orator further shows unto your honors that the said defendants before and ever since the 15th day of May, 1872, have been engaged in the manufacture and sale at the city of Chicago, and within the jurisdiction of this court and elsewhere, of large numbers of said improvevements, called tuckers or tuck-markers or creasers, to wit, five thousand substantially similar to and embodying the said invention and improvement described and specified in and by the said letters-
25, 26 patent and the schedule and drawings accompanying the same and made part thereof, and secured thereby in violation and infringement of the said letters-patent, and the full and exclusive right and liberty of and in the said invention and improvement secured thereby, and that they now making and constructing or causing to be made and constructed divers, to wit, one thousand improvements, called tuckers or tuck-markers or creasers, substantially similar to and embodying the said invention and improvement so secured as aforesaid, and although your orator has requested the said defendants to desist from such violation and infringement, the said defendants persist therein and threaten and intend to continue said manufacture and sale of

said improvements at said city of Chicago and elsewhere, in violation and infringement of said letters-patent, and the said right and liberty of and in the said invention and improvement, contrary to equity and good conscience, and to the manifest wrong and injury of your orator and to his damage twenty thousand dollars.

And your orator further shows unto your honors that in a suit in the circuit court of the United States for the northern district of Illinois in equity, wherein your orator was complainant and Henry C. Goodrich was defendant, a final decree was entered on the fourth day of February, 1868, against the defendant therein in favor of your orator, affirming and establishing that your orator was the first and original inventor of the said invention and improvements, and that the said letters-patent so granted to him as aforesaid were valid, and that the said decree is now in full force and effect. And that a like decree was also entered on the seventeenth day of March, 1869, in a suit in the circuit court of the United States for the northern district of New York, wherein your orator was complainant and one Smith C. Boughton was defendant, against said defendant, which said last-mentioned decree is also now in full force and effect.

In consideration whereof, and forasmuch as your orator can have adequate relief only in this court, where matters of this sort are properly cognizable and relievable, and to the end, therefore, that the said defendants may, upon their oaths and to the best of their knowledge, information, and belief, direct, true, and perfect answer make to all the matters and things hereinbefore set forth, and that as fully and particularly as if the same were here again repeated, and they particularly interrogated thereto; and that they may be enjoined and restrained by a writ of injunction issued out of and under the seal of this court from making, constructing, or causing to be made or constructed, using or vending to others to be used, any such improvements such as they are now making and vending, as hereinbefore set forth, or such as are precisely or substantially similar to or embody the said invention or improvement so secured by said letters-patent as aforesaid, and owned by your orator as aforesaid, and that they may be decreed to pay the damages aforesaid, and account for and pay over to your orator the gains and profits by them made by the use and sale of said improvements as aforesaid, and to deliver up and cause to be destroyed all dies and tools used specially for such manufacture aforesaid; and that your orator may have such other and further relief as may be consistent with equity and good conscience,

May it please your honors, the premises considered, to grant to your orator not only a writ of injunction, issuing out of and under the seal of this court, enjoining and restraining the said defendant from making, constructing, causing to be made or constructed, using or vending to others to be used, any such improvements as they are now manufacturing and selling as aforesaid, or such as are precisely or substantially similar to or embody the said invention and improvements of your orator so secured as aforesaid, but also a writ of subpœna issued out of and under the seal of this court, commanding them to appear at a certain time and place in this court to answer the premises, and to stand to and abide such orders and decrees herein as may be consistent with equity and good conscience.

And your orator, as in duty bound, will ever pray, &c.

H. W. FULLER.

CHARLES C. BONNEY and E. B. BARNUM,
Solicitors and of Counsel for Complainant.

UNITED STATES OF AMERICA,
Northern District of Illinois, ss :

Henry W. Fuller, the complainant in the foregoing bill of com-
37, 38 plaint named, being duly sworn, says that the matters and things set forth in the said bill, so far as they relate to his own acts and deeds, are true; and so far as they relate to the acts and deeds of any other person or persons he believes them to be true, and that he verily believes that he is the original and first inventor of the improvement mentioned and described in the letters-patent mentioned in the foregoing bill.

H. W. FULLER.

Subscribed and sworn to before me this 8th day of May, 1872.
[SEAL.] E. B. BARNUM,
Notary Public N. Y. C.

39, 40 Fuller Barnum *Schedule A.*

No. 28633.

The United States of America to all whom these letters-patents shall come:

Whereas Henry W. Fuller, of Brooklyn, New York, has alleged that he has invented a new and useful improvement in mechanism for marking cloth in sewing-machines, (he having assigned his right, title, and interest in said improvement to himself and Anthoney W. Goodell, of said Brooklyn,) which he states has not been known or used before this application, has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first in-
41, 42 ventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose.

These are therefore to grant, according to law, to the said Henry W. Fuller and Anthony W. Goodell, their heirs, administrators, or assigns, for the term of fourteen years from the fifth day of June, one thousand eight hundred and sixty, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of
43, 44 the said Henry W. Fuller, in the schedule hereunto annexed, and is made a part of these presents.

In testimony whereof, I have caused these letters to be made patent, and the seal of the Patent-Office has been hereunto affixed.

Given under my hand at the city of Washington, this fifth day of June, in the year of our Lord one thousand eight hundred and sixty, and of the Independence of the United States of America the eighty-fourth.

[SEAL.] JACOB THOMPSON,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
PHILIP T. THOMAS,
Commissioner of Patents.

The schedule referred to in these letters-patent and making part
45, 46 of the same.

To all whom it may concern:

Be it known that I, Henry W. Fuller, of Brooklyn, in the county of Kings, and State of New York, have invented, made, and applied to use certain new and useful improvements in means for marking cloth in sewing-machines, which I denominate the "Universal Marker for Plaiting and Tucking," and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making part of this specification, wherein Fig. 1 is a side elevation showing my apparatus, also the needle-arm and pressure-foot of a sewing-machine, and Fig. 2 is a plan of the same with the arms removed to show the other parts.

Similar marks of reference denote the same parts. The nature
47, 48 of my said invention consists in a vibrating marking instrument or instruments that move in unison with the needle so as to crease or mark the cloth at a given distance or distances from the needle, and the same not pressing on the cloth except whilst the needle is in the cloth prevents such marking instrument obstructing the cloth in its movement by the feed, and hence said mark can be made at any distance from the sewing and the cloth remain smooth. By the use of a point vibrating in unison with the needle and acting on the upper surface of the cloth in connection with a notch or an elastic surface or pad below the cloth a crease will be made whose ridge is below the cloth, and by the use of a point below the cloth and a vibrating notch
49, 50 or elastic pad above, a crease will be formed whose ridge is on the upper side of the cloth, and by the use of one, two, or more of these up or down markers, or one up and one down marker, the crease or ridge can be made exactly at the desired distance from the line of sewing, and either upwards or downwards, according to the way in which the cloth is to be folded over for the after operations, and on performing another line of sewing the crease or creases are made for the next fold. This device is especially useful in all kinds of tucking and in plaiting shirt-bosoms and similar work; by the use of a vibrating pencil or chalk a line of marks is made by which a second line of stitching is guided, the same being useful in quilting or performing any straight or curved or parallel lines of stitching. It will be evident that if
51, 52 the marking-points are at right angles to the feed from the needle the marking must be a given distance from the sewing, and parallel thereto, regardless of the curved or zigzag form in which the sewing is performed.

In the drawing *a* represents the bed of my sewing-machine, *b* is the pressure-foot, and *c* the needle bar or arm, all of which may be of any form, and the sewing is to be performed by the needle *d*, in connection with a shuttle-looper or any device. *e* is an arm, extending from the needle arm or bar and vibrating with the same. *f* is a pencil, chalk, or point adjusted on said arm *r*, so that in its vibrations the point shall press upon the cloth, and consequently made a mark thereon at the distance from and parallel to the line of sewing being performed, at which the second row of sewing is to be made. This is especially
53, 54 adapted to marking for quilting or stitching. *g* is a bar that may be attached to the pressure-foot so as to be raised up with it, or may be sustained in any other convenient manner. *h h* are adjustable marking-arms that extend from the bar *g*, and are provided, one with a marking-point *i*, and the other with a marking notch *k*.

The arms *h* are formed as springs, so that the parts *i* and *k* are raised from the surface of the cloth, except when acted on by the arm *r*, and said arms *h* are also fitted with springs taking the arm *r*, so as to yield in case of inequality in the thickness of cloth and not interfere with the full stroke of the needle-bar. *l* is a plate screwed on to the bed *a*, and carrying the adjustable point *m* and leather *n*, or its equivalent.
55, 56 The point *m* is formed somewhat similar to the point *i*, both being thin, rounded, and blunt chisel forms, so as not to injure or catch in the cloth, and this point *m* may be fitted to slide in a groove for adjusting the same to the desired distance from the needle, or several of these points may be formed or attached permanently on a plate at short distances apart. The leather *n* is also represented as adjustable and its forms a crease, into which the point *i* acts, and said leather may be set into a small metal holder, or it may be formed as a strip of sufficient length to comprise the distance to which the part *i* may be adjusted. The operation of this part is illustrated in figs. 4 and 5, where the marking parts *i*, *n*, and *k*, *m* are shown in larger size, and the
57, 58 fold or crease produced in the cloth is also represented. The points *i n* produce a downward crease and the parts *k m* an upward crease when the cloth is exposed to the action of these parts by passing between the same; and, in order to give motion to these markers, the bar or arm *r* strikes on the spring part of the arms *h h*, (see figure 3,) pressing the surfaces together and crumping or creasing the cloth. The drawing represents my apparatus as adapted for stitching three-ply shirt-bosoms, as seen in fig. 5, in which instance the plait folded under the cloth runs against the end of plate *l*, as a guide, and the adjustable spring-finger *o*, pressing on the plait, keeps it folded down tightly, ready to pass under the pressure-foot *b*. *p* is a swinging guide, attached to the screw 1 to the arm carrying the bar *g*, and
59, 60 acted on by the spring 2, to keep the end of the guide within the plait, and the back of the plait against the end of the plate *l*, so that the stitching will be upon the edge of the plait with unerring certainty.

For tucking, the markers should extend on the other side of the needle-arm, and for this purpose the bar *g* can be fitted in any convenient manner, but where a holder or arm to the pressure-foot is used in the manner shown, the hole into which said bar sets may pass through the same and be provided with a clamping-screw, so that said bar *g* can be inserted from the other side and the plate *l* also stands on the other side of the needle, a second slot, 3, being provided for this purpose. The arm
61, 62 *r* also requires to be changed to the other side, in order to take the other marking-points *i n*.

It will be evident that the marking notch or point *i* or *k*, or both, might be placed directly on the arm *r*, and provided with a suitable spring between the bar and point. The manner of attaching the parts to the sewing-machine must also be varied, as circumstances may require, for different characters of sewing-machines, or for different kind' of work to be performed, and the vibrating motion may be given to the markers by any other device beside the needle-bar. I do not claim a *guage* for spacing off the width of folds, tucks, or plaits, either in a sewing-machine or applied as a separate apparatus for said purpose, but all the previous devices with which I am acquainted acted
63, 64 simply to perforate the goods or form a mark at a given point to which the goods had to be folded by hand, whereas my apparatus makes a complete crease in the cloth so that the parts of the

cloth, when laid over each other, fold down at these creases without requiring creasing by hand as a separate and prerequisite operation.

What I claim and desire to secure by letters-patent is forming one, two, or more creases in cloth, by means of markers, on opposite sides of the cloth, one of which is connected with the bed of the machine, and the other operates simultaneously with vibrations of the needle in a sewing-machine, whereby the crease or creases are formed in the cloth itself, parallel to the line of sewing, in such a manner that the 65, 66 cloth is ready for doubling over at said creases for the next line of sewing, as set forth.

I also claim marking a line on the surface of cloth or other material being sewed in a machine, by means of a pencil or similar article that is pressed upon the surface of said cloth at the time the needle perforates the same, and is raised therefrom when the feed takes place, so as to produce a series of marks parallel to and simultaneous with the line of sewing, as set forth.

In witness whereof I have hereunto set my signature this twenty-fifth day of February, 1860.

HENRY W. FULLER.

Witness:
LEMUEL W. SERRELL.
THOS. GEO. HAROLD.

(Endorsed:) Filed May 27, 1872. W. H. Bradley, clk.

67, 78 *Stipulation.*

UNITED STATES OF AMERICA,
Northern Judicial District of Illinois, ss:

In the United States circuit court, of the May term, A. D. 1872.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery. Bill for infringement of patent.

Stipulation for appearance and for hearing motion for injunction.

To save unnecessary trouble and expense, it is hereby stipulated by and between the parties above named as follows:

1. The appearance of the said defendants is hereby entered, 69, 70 and the issuing and service of process is waived.

2. A motion of the complainant for an injunction as prayed for in said bill may be set for hearing on such day as the court may fix, on entering such motion, and such time or times for the filing of affidavits for or against said motion may then be fixed as the court, on hearing the suggestions of counsel, may deem reasonable.

CHARLES C. BONNEY,
Counsel for Complainant.
WALTER B. SCATES,
Sol. for Deft.
S. A. GOODWIN,
Of Counsel for Deft.

(Endorsed:) Filed May 27, 1872. W. H. Bradley, clk.

And afterwards, to wit, on said twenty-seventh day of May, 71, 72 one thousand eight hundred and seventy-two, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

By agreement of the parties by their solicitors, it is order that the application of the complainant for an injunction against the defendants as prayed for in the bill herein be set for a hearing on the tenth day of July next.

And afterwards, to wit, on the twenty-fourth day of June, one thousand eight hundred and seventy-two, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

73, 74 Now come the parties by their solicitors, and now comes on to be heard the motion of the defendant to postpone the hearing of the application for injunction on the part of the complainant, which has been set for the tenth day of July next, and after hearing the arguments of counsel the court takes the same under advisement.

And afterwards, to wit, on the second day of August, one thousand eight hundred and seventy-two, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

Now comes the complainant by his solicitors, and on motion the 75, 76 defendants are ruled to file their affidavits as to the merits of their defence on or before the fifteenth day of August next.

And afterwards, to wit, on the third day of August, one thousand eight hundred and seventy-two, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

Now comes the complainant by his solicitors, and thereupon on his motion and by agreement this cause is set down for hearing upon the motion heretofore made to grant a preliminary injunction on Tuesday, the first day of October next.

And afterwards, to wit, on the first day of October, one thousand 77, 78 eight hundred and seventy-two, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

Now come the parties by their solicitor, and now comes on to be heard

the application of the complainant for an injunction against the defendants as prayed for in the bill of complaint herein, and after hearing the arguments of counsel the court, not being sufficiently advised in the premises, takes time to consider.

And afterwards, to wit, on the first day of October, one thousand eight hundred and seventy-two, the said defendants by their solicitors come and file their answers herein, which read in the words and 79, 80 figures following, to wit:

United States circuit court for the northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

The answer of Enoch S. Yentzer & Walter Scates, defendants, to the bill of complaint of Henry W. Fuller, complainant, upon the Fuller & Goodell patent.

These defendants, now and at all times hereafter reserving and saving unto themselves all and all manner of benefit and advantage of exception which can or may be taken to the many errors, uncertainties, and imperfections of the said complainant's said bill of complaint, for 81, 82 answer thereunto, or to so much and such parts thereof as these defendants are advised it is material or necessary for them to make answer unto, admit, upon information and belief, that Henry W. Fuller was a citizen of the United States on and prior to the fifth day of June, A. D. 1860, and claimed to be the original & first inventor of a certain new and useful improvement in mechanism for marking cloth in sewing-machines.

These defendants further answering, upon information and belief, admit that said Fuller first made claim and application about the fifth day of June, 1860, in due form of law, to the Commissioner of Patents of the United States for letters-patent therefor, to be issued to him, and that he complied in all respects with the requirements of the acts of Congress in such cases.

These defendants, upon like information and belief, further 83, 84 admit that an interest in said invention having been assigned to one Anthony W. Goodell by said Fuller, letters-patent were thereupon issued to the said Fuller and the said Goodell under the seal of the Patent-Office of the United States, signed by the Secretary of the Interior and countersigned by the said Commissioner in due form of law, bearing date the fifth day of June, A. D. 1860, whereby the full and exclusive privilege of making, constructing, using said invention and improvement, and vending to others to be used, was granted to them, their heirs, administrators, and assigns, for the term of fourteen years from the date thereof; and that a description thereof and the designs accompanying the same were annexed thereto and made a part thereof.

These defendants, upon like information and belief, further 85, 86 admit that after said letters-patent had been issued to said Fuller and Goodell on or about the tenth day of July, 1860, said Anthony W. Goodell made and executed, under his hand and seal, and duly recorded in the office of the Commissioner of Patents on the 12th day of July, 1860, in book 5, page 311, sold, assigned, transferred, and set over to said Fuller, his heirs, executors, administrators, and assigns, all his right, title, and interest in and to the said letters-patent.

But these defendants, further answering, say that they are informed and believe, and therefor' charge the fact to be true, that after the issuing of said letters-patent, and after the execution of the said deed of assignment by said Goodell of his interest therein to the said Fuller, on the tenth day of July, 1860, said Fuller and Goodell did not
87, 88 put the said invention and improvement described in said letters-patent, and shown by the drawings and model thereof, into use, nor did they at great labor and at great expense, or any material expense, create a demand for the same in the market, nor have the said Fuller and Goodell, nor has the said Fuller alone, since the issue of said letters-patent, uninterruptedly enjoyed the exclusive right and liberty pretended and claimed to have been granted therein and thereunder, nor have such pretence and claim been fully admitted, recognized, or allowed by the public and the trade generally, nor did the said Fuller and said Goodell and said Fuller, and licensees, manufacture and sell large numbers of said improvements, to wit, 300,000 and upwards,
89, 90 from time to time, nor at any time but; on the contrary thereof these defendants, upon information and belief, aver and charge the fact to be that neither said Fuller and Goodell, the patentees, nor said Fuller alone as patentee and assignee of said Goodell, nor did the licensees of said patentees or either of them ever manufacture and put upon the market for sale any mechanism or mechanical device containing the whole or any substantial patentable part of the alleged invention and improvement described in the specifications, drawings, and model set forth, referred to or annexed to said letters-patent as part thereof.

But these defendants, upon information and belief, expressly deny that the said letters-patent were for such a device, invention, improvement, or mechanism as those manufactured, if any were, by
91, 92 said patentees or patentee, or any other person or corporation by them licensed therefor and thereunder, or that any such manufacturer, if any they made, was or is the device, invention, or improvement covered by and described in said letters-patent, or such as was claimed and described therein and the drawings and models re-
herein.

efendants, further answering, admit that they have manufac-
sold a tuck-marking device, but they insist and aver that the
nufactured and sold by them as tuck-marker is and was so
red and sold under letters-patent, duly issued according to
Secretary of the Interior and Commissioner of Patents to
lant Enoch S. Yentzer, numbered 96180, and dated October
th, 1869, and numbered 113610, and dated April 11, 1871,
d like letters-patent numbered 127287, to said Yentzer,
aring date May 28, 1872, for new improvements in attach-
sewing-machines invented by said Enoch S. Yentzer, and
lly set forth and described in the specifications in said last-
patents so granted to said Yentzer; and these defendants
e said devices so patented to said Yentzer as aforesaid, and
factured and sold by these defendants under said Yentzer's
substantially different in principle, construction, and mode of operation from the device described in the specifications and shown in the drawings and model set forth and attached to and made parts of said Fuller and Goodell's patent.

And these defendants further aver that said device' so manufactured and sold by these defendants are substantially different in
95, 96 principle, mode of operation, and construction from the several

parts and from all the combinations and modes of attaching the same to a sewing-machine, which were patentable, and which were, or which were in fact included in and granted and covered by said letters-patent to said Fuller and Goodell, according to the true construction, intent, and meaning of said letters-patent, and are unlike in construction, principle, and mode of operation, and are plainly distinguishable from the device of complainant's said patent, and does not in any manner infringe upon the rights secured thereby.

And these defendants, further answering, deny that before and ever since the 15th day of May, 1872, they have been engaged in the city of Chicago, within the jurisdiction of this court, or elsewhere, in
97, 98 the manufacture and sale of a large number of said so-called improvements of complainant, called tuckers or tuck-markers or creasers, to wit, 5,000, substantially similar to and embodying the said invention and improvement described and specified in and by the said letters-patent so issued to said Fuller and Goodell and the schedules and drawings accompanying the same, made part thereof, or that they have in the tuckers already made, or that they have ever made, or that they intend making, one thousand or other number more; or that they ever have made, or do hereafter intend to manufacture or sell, tuck-marking devices substantially similar to said complainant's, or in violation and infringement of the said letters-patent to said Fuller and Goodell, or of complainant's rights therein and thereunder, or in any way
99, 100 or manner injure or damage complainant's interests or rights in that behalf.

These defendants, further answering, deny any and all knowledge of any proceedings instituted by the said Henry W. Fuller in the circuit court of the United States for the northern district of Illinois, or elsewhere, against one Henry C. Goodrich for an alleged infringement of said original letters-patent, or of any other or similar proceedings commenced by said complainant against one Smith C. Broughton in the circuit court of the United States for the northern district of New York; nor have they any knowledge of final decree being rendered against said Goodrich on the 4th day of February, 1868, affirming and establishing that complainant was the first and original inventor of the said
101, 102 invention and improvements, and that the said letters-patent so granted to complainant as aforesaid were valid, or that said decree is now in full force and effect; nor have they any knowledge that a like decree was also entered on the 17th day of March, 1869, against said Boughton, or whether the same is now in full force and effect.

These defendants, further answering, deny all knowledge of the facts and allegations set forth in complainant's bill in relation to said suits, proceedings, and decrees against said H. C. Goodrich and Smith C. Boughton; and they have no information other than that set forth in complainant's bill, and can, therefore, have no belief in relation thereto; but these defendants are informed, and therefore admit, that the said complainant, claiming that said Goodrich and Boughton were
103, 104 infringing his rights under the said letters-patent, may have caused proceedings to have been instituted against them in said courts, to enjoin them or to recover damages for such alleged infringements, but what special acts of infringement were alleged against said defendants, or either of them, or what special defences were made thereto, these defendants do not know, and are not in any manner informed, and cannot state upon belief or otherwise; and as to all such matters, and the allegations of said bill in that behalf, these defendants leave the complainants to make proof as he may be advised is proper. These

But these defendants, further answering, say that they are informed and believe, and therefor' charge the fact to be true, that after the issuing of said letters-patent, and after the execution of the said deed of assignment by said Goodell of his interest therein to the said Fuller, on the tenth day of July, 1860, said Fuller and Goodell did not
87, 88 put the said invention and improvement described in said letters-patent, and shown by the drawings and model thereof, into use, nor did they at great labor and at great expense, or any material expense, create a demand for the same in the market, nor have the said Fuller and Goodell, nor has the said Fuller alone, since the issue of said letters-patent, uninterruptedly enjoyed the exclusive right and liberty pretended and claimed to have been granted therein and thereunder, nor have such pretence and claim been fully admitted, recognized, or allowed by the public and the trade generally, nor did the said Fuller and said Goodell and said Fuller, and licensees, manufacture and sell large numbers of said improvements, to wit, 300,000 and upwards,
89, 90 from time to time, nor at any time but; on the contrary thereof these defendants, upon information and belief, aver and charge the fact to be that neither said Fuller and Goodell, the patentees, nor said Fuller alone as patentee and assignee of said Goodell, nor did the licensees of said patentees or either of them ever manufacture and put upon the market for sale any mechanism or mechanical device containing the whole or any substantial patentable part of the alleged invention and improvement described in the specifications, drawings, and model set forth, referred to or annexed to said letters-patent as part thereof.

But these defendants, upon information and belief, expressly deny that the said letters-patent were for such a device, invention, improvement, or mechanism as those manufactured, if any were, by
91, 92 said patentees or patentee, or any other person or corporation by them licensed therefor and thereunder, or that any such manufacturer, if any they made, was or is the device, invention, or improvement covered by and described in said letters-patent, or such as was claimed and described therein and the drawings and models referred to therein.

These defendants, further answering, admit that they have manufactured and sold a tuck-marking device, but they insist and aver that the device manufactured and sold by them as tuck-marker is and was so manufactured and sold under letters-patent, duly issued according to law by the Secretary of the Interior and Commissioner of Patents to the defendant Enoch S. Yentzer, numbered 96180, and dated October 26th, 1869, and numbered 113610, and dated April 11, 1871,
93, 94 and like letters-patent numbered 127287, to said Yentzer, bearing date May 28, 1872, for new improvements in attachments for sewing-machines invented by said Enoch S. Yentzer, and which is fully set forth and described in the specifications in said last-mentioned patents so granted to said Yentzer; and these defendants aver that the said devices so patented to said Yentzer as aforesaid, and since manufactured and sold by these defendants under said Yentzer's patents, are substantially different in principle, construction, and mode of operation from the device described in the specifications and shown in the drawings and model set forth and attached to and made parts of said Fuller and Goodell's patent.

And these defendants further aver that said device' so manufactured and sold by these defendants are substantially different in
95, 96 principle, mode of operation, and construction from the several

parts and from all the combinations and modes of attaching the same to a sewing-machine, which were patentable, and which were, or which were in fact included in and granted and covered by said letters-patent to said Fuller and Goodell, according to the true construction, intent, and meaning of said letters-patent, and are unlike in construction, principle, and mode of operation, and are plainly distinguishable from the device of complainant's said patent, and does not in any manner infringe upon the rights secured thereby.

And these defendants, further answering, deny that before and ever since the 15th day of May, 1872, they have been engaged in the city of Chicago, within the jurisdiction of this court, or elsewhere, in
97, 98 the manufacture and sale of a large number of said so-called improvements of complainant, called tuckers or tuck-markers or creasers, to wit, 5,000, substantially similar to and embodying the said invention and improvement described and specified in and by the said letters-patent so issued to said Fuller and Goodell and the schedules and drawings accompanying the same, made part thereof, or that they have in the tuckers already made, or that they have ever made, or that they intend making, one thousand or other number more; or that they ever have made, or do hereafter intend to manufacture or sell, tuck-marking devices substantially similar to said complainant's, or in violation and infringement of the said letters-patent to said Fuller and Goodell, or of complainant's rights therein and thereunder, or in any way
99, 100 or manner injure or damage complainant's interests or rights in that behalf.

These defendants, further answering, deny any and all knowledge of any proceedings instituted by the said Henry W. Fuller in the circuit court of the United States for the northern district of Illinois, or elsewhere, against one Henry C. Goodrich for an alleged infringement of said original letters-patent, or of any other or similar proceedings commenced by said complainant against one Smith C. Broughton in the circuit court of the United States for the northern district of New York; nor have they any knowledge of final decree being rendered against said Goodrich on the 4th day of February, 1868, affirming and establishing that complainant was the first and original inventor of the said
101, 102 invention and improvements, and that the said letters-patent so granted to complainant as aforesaid were valid, or that said decree is now in full force and effect; nor have they any knowledge that a like decree was also entered on the 17th day of March, 1869, against said Boughton, or whether the same is now in full force and effect.

These defendants, further answering, deny all knowledge of the facts and allegations set forth in complainant's bill in relation to said suits, proceedings, and decrees against said H. C. Goodrich and Smith C. Boughton; and they have no information other than that set forth in complainant's bill, and can, therefore, have no belief in relation thereto; but these defendants are informed, and therefore admit, that the said complainant, claiming that said Goodrich and Boughton were
103, 104 infringing his rights under the said letters-patent, may have caused proceedings to have been instituted against them in said courts, to enjoin them or to recover damages for such alleged infringements, but what special acts of infringement were alleged against said defendants, or either of them, or what special defences were made thereto, these defendants do not know, and are not in any manner informed, and cannot state upon belief or otherwise; and as to all such matters, and the allegations of said bill in that behalf, these defendants leave the complainants to make proof as he may be advised is proper. These

defendant' are, however, informed and believes, and therefor' state it to be true, that the said proceedings were not pressed or defended to
their final conclusion, and that settlements were arranged by
105, 106 and between the parties thereto, and which arrangements nominally recognized the validity of said letters-patent and the infringement thereof by the said respective defendants therein, and that decrees were agreed upon as part of such settlements, and which were entered as though they were the judgments of the courts made and rendered upon issues and facts in said cases.

And these defendants are further informed and believe, and therefore state the fact to be, that the amount agreed to be paid by said Goodrich and Boughton in pursuance of said settlements were inconsiderable, and not greater than the probable expense of contesting the claims of the said complainant under said letters-patent, and that said defendants assented to the terms of said settlements more for the purpose of being
rid of the trouble, expense, hindrance, annoyance, and delay
107, 108 in and by litigation, than because of the conviction of the validity of said letters-patent or of the *ulidity* of said pretended improvement in case the validity of said letters-patent should be established.

These defendants therefore deny that said proceedings or the records therein or the final disposition thereof, when properly understood, are of any value as evidence of the justice or legal validity of the claims of the said complainant under his said letters-patent, or that the results of said proceedings ought to be received or treated as an adjudication in favor of said letters-patent or as an acquiescence in the validity thereof, especially as against these defendants, who were neither a party thereto or cognizant thereof, and therefore are not bound and cannot be bound
or in any manner prejudiced thereby.

109, 110 And your respondents are informed and believe, and so charge the fact to be, that said H. C. Goodrich has since said settlement paid under protest whatever sum or sums were so to be paid by him.

These defendants, further answering, deny that *to* said pretended invention or improvement of the said Fuller, sought to be covered by said letters-patent to said Fuller and Goodell, is or 'as been of any practical value to the public in the construction and use of tuckers or creasers as attachments to sewing-machines, or that any tuckers, tuck-markers, or creasers of the particular form or substantial parts of the form of the mechanism set forth and described in said schedule, specifications, drawings, and model attached, referred to and made part of said letters-patent, was ever manufactured and put upon the market for sale,
111, 112 or sold, by said Fuller and Goodell, or by said Fuller or his or their licensees or otherwise, and they deny that the said pretended invention or improvement had, or now has, or ever had any practical value as a tucker or creaser attachment to sewing-machines as a combination, as a whole, or any patentable part thereof; and they aver and charge that the whole combination and its several patentable parts, if any there be, was and are cumbersome and intricate, complicated, and difficult to understand, difficult to put in order, adjust, and preserve and keep in adjustment for operation, and as a whole and in all its patentable parts was, is, and ever has been and will be, wholly impracticable, valueless, and worthless to the public as a tucker or creaser for which it was designed.

These defendants, further answering upon information and belief,

and so state and charge, that said complainant claims and is
113, 114 seeking, attempting, and intending in underhand, by said letters-patent, to cover and appropriate to his own exclusive benefit and use a principle and result, and not the particular mechanism or mechanical devise invented by him for embodying a principle, and by it attaining the desired result; and these defendants therefore insist that principles and results are not patentable, and resist and deny that said Fuller has in, under, and by said letters-patent any right to claim any principle embodied in his particular form of mechanism or any results attained by its operation and use.

And these defendants, further answering, upon information and belief assert, charge, and aver that the principles embodied in the particular mechanical device or mechanism of complainant's tuck-marker
115, 116 as a whole and its several parts, and all that are practicable, useful, or valuable therein, are and were well known to the art, to artizens, and to the public, and in common use, prior to the pretended invention, and said letters-patent to complainant and Goodell, and the same were so used in the cities of Chicago, New York, New Haven, Boston, Philadelphia, Baltimore, New Orleans, St. Louis, and Cincinnatti, and in each one of the States of the United States.

These defendants, further answering, according to their best knowledge, information, and belief, deny that the tuck-markers or creasers which have been and are now being manufactured for and sold by these defendants before and since the 15th day of May, 1872, embody or contain the principles, or any material parts thereof, of the pre-
117, 118 tended improvement or invention of said complainant described and set forth in the said letters-patent, and the schedule, specifications, drawings, and models attached as part thereof, and therein referred to, and at the same time these defendants admit that they are having manufactured and are selling tuck-markers or creasers of the mechanical device, form, and model known as the Yentzer patent, granted and issued to the defendant Enoch S. Yentzer, as hereinbefore stated; but these defendants deny that the said complainant has been damaged or injured thereby, or that they have so manufactured and sold 5,000 of such tuck-markers, or that the same are substantially or otherwise similar to the tuckers or device of said complainant.

These defendants, further answering, upon information and
119, 120 belief expressly deny that the said complainant was the original and first inventor of any material part of a mechanical device for tuck-marker as attachment to sewing-machines, or of such a device with upper and lower markers upon opposite sides of the cloth or other material to be marked, creased, or bent, or of a point and notch, or their equivalent, as markers, or of a pencil, or chalk, or other pigment for making marks, or of a combination of such and like markers with an under base and an upper spring for lifting the upper marker from the lower or under marker, or of attaching such marking device to a sewing-machine or other table or stand by means of a nut and screw or other equivalent thereto, or of the adjustability of such and like markers, or of making creasers in cloth, metals, and such like in manufacturing clothing, wearing-apparel, and other house-
121, 122 hold goods and furniture; but that long prior to the pretended invention and improvements in complainant and Goodell's letters-patent described, various mechanical devices embodying the same principles and accomplishing the same results by means of substantially similar and like mechanism, for the manufacture of clothing, wearing-apparel, household goods, and furniture, were well known to the art, to

artizans, and in public use before the pretended invention and improvement and letters-patent of and to complainant and said Goodell, and all which were so used in the cities of Chicago, Cincinnati, St. Louis, New York, Boston, Philadelphia, Baltimore, and New Haven.

123, 124 These defendants, further answering, upon information and belief aver the fact that prior to the date of said letters-patent to complainant and said Goodell, to wit, on the 14th day of February, 1860, one Calvin D. Wheeler, of the city and county of New York and State of New York, made application to the Commissioner of Patents, in due form of law, for, and letters-patent were on that day issued to said Wheeler, numbered 27179, for an invention in and improvement of marking-guages for sewing-machines, and which said letters-patent so granted and issued to said Wheeler embodied all the substantial patentable elements and principles embodied in the patent to said complainant and said Goodell, and that the same were then well known to the said Calvin D. Wheeler, of said city, county, and State of New York,

125, 126 and divers other persons, to wit, Mrs. H. W. Bush and Mr. Joseph Murray, of the same city, county, and State of New York.

These defendants, further answering and denying as aforesaid that said complainant was the first inventor of such patented improvement embodying the principles and all the material, substantial, and valuable parts of said complainant's and said Goodell's said patent, upon information and belief aver the fact to be that various mechanical devices for making cloth, leather, metals, and other substances and materials in various manufactures thereof, for clothing, and other wearing-apparel, household, kitchen, and other furniture, and articles in common use, domestic and commercial, and embodying the principles of a

127, 128 notch and blade, or a point and notch socket-slot, and on even surfaces on one side, and used on opposite sides of the substance or material to be marked or impressed, and with and without a spring or spring-lever for lifting the upper from the under marker, have been long known to the art, artizens, and to the public generally, and used by them in processes of manufacturing, and before the date of said letters-patent to said complainant and said Goodell, and which said mechanical devises were so known to and used in each State of the United States, and their cities and towns, and the common and public use thereof was known by G. L. Chapin, Franklin H. Brown, Edwin J. Cubley, A. H. Sherburne, Philip A. Hoyne, William H. Bradley, William L.

129, 130 Church, George A. Bowers, and Samuel D. Childs, jr., and D. P. Barrett, of the city of Chicago, Cook County, Illinois; and also to Stephen Walkly, R. A. Neal, O. W. Lowe, G. W. Creamer, of the city, county, and State of New York; and H. B. Bigelow and Elizir E. Clark, of the city of New Haven, in the State of Connecticut, and the same was described in an English patent issued to Robt. Parnell, November 13, 1849, numbered 12842, and described and published in England in the Mechanics' Magazine, in volume 52, page 397, long before said letters-patent aforesaid to complainant.

These defendants, having now fully answered all and every material allegation of said complainant' bill necessary for them to make answer unto, pray that they may be hence dismissed with their reason-

131, 132 able allowances, expenses, solicitors' fees, and costs, without this that there is any other matter or thing not herein fully admitted, traversed, or denied, material or necessary for them to make answer unto.

UNITED STATES OF AMERICA,
State of Illinois :

Enoch S. Yentzer and Walter Scates, defendants, being first duly sworn, depose and say, that they have read and are acquainted with the contents of the foregoing answer, and that the matters and things therein stated of their own knowledge are true, and that the matters and things therein stated upon information and belief, and upon the opinion and advice of counsel, they believe to be true.

ENOCH S. YENTZER,
WALTER SCATES,

Subscribed and sworn to before me this 26th day of September, A. D. 1872.

133, 134 [SEAL.] MICHAEL SCHWEISTHAL,
Notary Public.

(Endorsed :) Filed Oct. 1, 1872. W. H. Bradley, clk.

And on the day and date last aforesaid the said complainant, by his solicitors, came and filed this replication to the answer of the defendants, in the words and figures following, to wit :

UNITED STATES OF AMERICA, *ss :*

In the circuit court for the northern district of Illinois.

HENRY W. FULLER *and*
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

135, 136 The replication of Henry W. Fuller and Isaac W. Barnum, complainants, to the answer of Enoch S. Yentzer and Walter Scates.

These repliants, saving and reserving to themselves now and at all times hereafter all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of the said answer of the said defendants, for replication thereunto say that they will aver, maintain, and prove their bill of complaint to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendants is uncertain, untrue, and insufficient to be replied unto by these repliants, without this, that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto and not herein and hereby
137, 138 well and sufficiently replied unto, confessed and avoided, traversed or denied, is true. All which matters and things these repliants are ready to aver, maintain, and prove, as this honorable court shall direct, and humbly pray, as in and by their said bill they have already prayed.

BONNEY, FAY & GREGGS,
Solicitors for Complts.

(Endorsed :) Filed Oct. 1, 1872. W. H. Bradley, clk.

And afterwards, to wit, on the eighth day of April, in the year of our Lord one thousand eight hundred and seventy-three, in the record of the proceedings of said court is the following entry, to wit :

139, 140 HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

The court having considered and being now fully advised upon the application of the complainant for an injuction against the defendants, as prayed for in the bill of complaint herein, for the present overrules the same.

And afterwards, to wit, on the nineteenth day of May, one thousand eight hundred and seventy-three, in the record of the proceedings of said court is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } Chancery.

141, 142 This day came the complainant, by C. C. Bonney, his counsel, and the defendants, by Walter B. Scales, their counsel; and thereupon the parties to this cause having notified each other that they desired the evidence to be adduced in this cause to be taken orally—

It is, on their joint motion, ordered by the court that such evidence may be taken before any master or examiner of a circuitcourt of the United States, or commissioner thereof, in any judicial district where the witnesses to be examined may reside, upon such notice to the opposite party or counsel as such master or examiner may deem reasonable under the circumstances, it being understood that witnesses will be examined in the city of Chicago at some convenient time to be selected by complainant's counsel, and that witnesses will be
143, 144 examined in the city of New York at some like time to be selected by the defendants' counsel, and either party is at liberty to use any affidavit filed in this case as a deposition-in-chief made by the affiant, subject to the right of the opposite party to cross-examine the witnesses, and copies of such affidavits may be made from the files for that purpose.

It is further ordered that each party shall produce before the examiner, at the time of taking testimony and on cross-examination, the various models and tuck-creasers produced before the court upon the reargument of the motion for an injunction, or duplicates of such models and tuck-creasers, one of each kind.

And the court having duly considered the motion of the com-
145, 146 plainant heretofore argued herein, to require the said defendants to file monthly account of the tuck-creasers manufactured or sold by them or under their control during the pendency of this suit, and for a bond to secure such damages as said complainant may recover in this cause:

It is now here further ordered by the court that the defendants do file such account, commencing with the date of filing of the bill of complaint herein, and rendering the same by calendar months thereafter, such account to be verified by oath, according to the practice of the court in such cases.

It is further ordered by the court that said motion for a bond be denied, with liberty to the complainant to renew the same if the defendant shall be guilty of any unreasonable delay in preparing this cause for final hearing.

147, 148 And afterwards, to wit, on the twenty-eighth day of June, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } Chancery.

This day came the parties aforesaid, by their counsel respectively, and hereupon this cause came on to be heard upon the motion of the defendants to make Isaac W. Barnum, of Brooklyn, in the State of New York, a party complainant in this cause, whereupon the said defendants claim and the said complainant admitted that since the commencement of this suit the said Isaac W. Barnum had become and still was the owner of the letters-patent duly assigned and transferred
149, 150 by said Henry W. Fuller to said Isaac W. Barnum; and hereupon, with the consent of both the parties to this cause—

It is ordered by the court that the said Isaac W. Barnum be, and he hereby is, substituted for and in the place of said Henry W. Fuller as the sole complainant in this cause, and that the same be hereafter prosecuted in his name and for his benefit in the same manner that it might have been if he had become the sole owner of the said letters-patent, and the rights and privileges thereby conferred, before the commencement of this suit, and had brought the same in his own name, or the said Isaac W. Barnum may prosecute this suit in the names of said Henry W. Fuller and himself as co-complainants, for his sole benefit, if he shall be advised that it is more expedient for him to do so.

151, 152 And afterwards, to wit, on the second day of July, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause is the following entry, to wit:

ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES. } Chancery.

And now on this day came as well said complainant as the said defendants, by their counsel respectively, and the information and motion of the defendants heretofore filed herein, that is to say, that the said complainant, Isaac W. Barnum, had filed a bill in the circuit court of the United States for the district of Massachusetts against George Johnson, James Clark, and Allen Schenk,
153, 154 composing the firm of Johnson, Clark & Co., of Boston, Massachusetts, for an alleged infringement of the letters-patent, whose alleged infringement is likewise the subject of controversy in the pending suit; said alleged infringement on the part of Johnson, Clark & Co. consisting of the sale by them of the tuckers made by them, defendants herein, under Yentzer's patent, and which tuckers were purchased by said Johnson, Clark & Co. of and from the defendants herein, the said tuckers being manufactured in the city of Chicago, Illinois, by the respondents herein; and moving the court upon such

information to restrain said Isaac W. Barnum from proceeding any further in the prosecution of his said suit against the vendees
155, 156 of the respondents herein, the said Johnson, Clark & Co., or from prosecuting any other suits anywhere against the vendees of respondents' tuck-markers which are manufactured in Chicago by the respondents, accounted for to this court, and sold to other persons to resell.

And the said motion now coming on to be heard upon the exhibition of the motion, notice of counsel, and affidavit, and after argument of counsel thereupon, the court being fully advised in the premises, doth order that the said Isaac W. Barnum be restrained and barred from further prosecuting his said suit now depending and undetermined in the circuit court of the United States for the district of Massachusetts, wherein the said George Johnson, James Clark, and Allen Schenck, composing the firm of Johnson, Clark & Co., are defendants,
157, 158 and that the said Isaac W. Barnum do not by himself, his agent, attorney, or assigns take any further measure or action in said suit during the pendency of the suit in this court, or until the further order of this court, and that the said Isaac W. Barnum and the said Henry W. Fuller be restrained and barred from commencing any suit against any vendee of the respondents herein for any alleged infringement of letters-patent of said Henry W. Fuller, specified in the bill herein filed, based upon a sale or user of the tuck-markers of respondents by their vendees anywhere which are made by respondents in the city of Chicago, and which are alleged to be an infringement of the tuck-marker of complainants, and which are the subject of account
159, 160 and report to this court by respondents from month to month under the special order of this court made on May nineteen, eighteen hundred and seventy-three; provided that this order shall not prevent said complainants, or either of them, from prosecuting the above-named or any other suits for the manufacture, use, or sale of any such tuckers made elsewhere than at said Chicago, nor for any other tuckers which may be deemed to infringe the patent of said complainant. To the entry of which order the said complainants then and there, by their counsel, excepted.

And afterwards, to wit, on the same day and year last aforesaid, in the record of the proceedings of said court appears the following entry, to wit:

161, 162 ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES. } Chancery.

Now come' the complainant, by his solicitor, and moves the court to order and require that the defendants in this cause do, within some short day, to be named by the court, file their bond, in such sum and with such sureties as the court may direct, to perform and pay such decree as the court may render against the defendants in the final hearing of this cause, and also that the defendants, in all causes in other judicial districts which said complainants are stayed from prosecuting by a previous order herein, be required to appear and file the like security;

which said motions do stand over for affidavits and arguments thereon and in support thereof.

163, 164 And afterwards, to wit, on the twenty-third day of July, one thousand eight hundred and seventy-three, on the record of the proceedings of said cause is the following entry, to wit:

HENRY W. FULLER
v.
ENOCH S. YENTZER ET AL. } Chancery.

This day come the parties, by their solicitors, and on their agreement and joint motion it is ordered by the court that the order heretofore entered herein for the taking of the evidence orally in this cause be so far modified as to allow any evidence herein to be taken before any notary public who may be selected by or with the concurrence of both the parties to this suit.

165, 166 And afterwards, to wit, on the twenty-eighth day of July, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause appear' the following entry, to wit:

HENRY W. FULLER ET AL.
v.
ENOCH YENTZER ET AL. } Chancery.

And now at this time came the said complainants, by C. C. Bonney, esq., their solicitor, and the said respondents, by Scates & Whitney, their solicitors; and the motion of the respondents above, to compel the complainant I. W. Barnum to shew cause why he should not be attached for contempt of this court in violating the order of the court of July second, one thousand eight hundred and seventy-three,
167, 168 and also for order enlarging said order to *to* restrain said complainant Barnum from threatening and molesting said respondent's customers and interfering with his trade, now coming on to be heard, was, after argument of counsel, overruled; to which order counsel for respondents then and there except.

HENRY W. FULLER ET AL.
v.
ENOCH S. YENTZER ET AL. } Chancery.

And now at this day came the said complainants, by C. C. Bonney, esq., their solicitor, and the said respondents, by Scates & Whitney, his solicitors; and the motion of the said complainant, of July second, one thousand eight hundred and seventy-three, to compel the said defendants to give a bond to pay such damages, if any, as might be recovered against them in this cause, and to compel their vendees
169, 170 in other suits stayed by order of this court of July second aforesaid, to appear and give like bond herein; the same now coming

on to be heard, was, after argument of counsel, overruled; to which order of the court the complainants did, by their counsel, then and there except.

And afterwards, to wit, on the third day of November, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER AND ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

171, 172 Now come the parties, by their solicitors, and thereupon this cause is set down for hearing upon the pleadings, proofs, and exhibits on file, and after hearing a part of the arguments of counsel, the hour of adjournment having arrived, the further hearing is postponed until to-morrow morning.

And afterwards, to wit, on the fourth day of November, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER ET AL.
v.
ENOCH S. YENTZER ET AL. } In chancery.

Now come again the parties, by their solicitors, and after hearing additional arguments of counsel, without concluding the same, the
173, 174 hour of adjournment having arrived, the further hearing is postponed until to-morrow morning.

And afterwards, to wit, on the fifth day of November, one thousand eight hundred and seventy-three, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER ET AL.
v.
ENOCH S. YENTZER ET AL. } In chancery.

Now come again the parties, by their solicitors, and after hearing the concluding argument of counsel in this cause, the court, not being sufficiently advised in the premises, takes time to consider.

175, 176 And afterwards, to wit, on the fifth day of September, one thousand eight hundred and seventy-four, in the record of the proceedings of said court in said cause is the following entry, to wit:

HENRY W. FULLER AND ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

Now come the parties, by their solicitors, and the court having considered, and being now fully advised upon, the matters heretofore submitted herein, dismisses the bill in this cause for want of equity.

It is thereupon considered, adjudged, and decreed by the court that this cause be dismissed at the costs of the complainants, and
177, 178 that the defendants do have and recover of and from the complainants their costs and charges in this behalf expended, amounting to the sum of dollars and cents, and that execution issue therefor.

And thereupon said complainants pray an appeal to the Supreme Court of the United States, which is allowed by the court upon giving bond in the sum of five hundred dollars, with security to be approved by the court.

179, 180 And afterwards, to wit, on the nineteenth day of September, one thousand eight hundred and seventy-four, the said complainants, by their solicitors, came and filed the following appeal-bond, which reads in the words and figures following, to wit:

UNITED STATES OF AMERICA:

In the Supreme Court, of the October term, A. D. 1874.

HENRY W. FULLER AND ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES.

Tuck-creaser patent. Case I. Appeal in equity from the circuit court for the northern district of Illinois.

Appeal-bond.

181, 182 Know all men by these presents that we, Henry W. Fuller and Isaac W. Barnum, as principals, and Francis A. Stevens as surety, are held and firmly bound unto Enoch S. Yentzer and Walter Scates in the penal sum of five hundred dollars, lawful money of the United States, for the payment whereof, well and truly to be made to the said Enoch S. Yentzer and Walter Scates, or their heirs, executors, administrators, or assigns, we do hereby bind ourselves and our heirs, and executors, or administrators, jointly and severally, firmly by these presents. Witness our hands and seals this 14th day of September, A. D. 1874. The condition of the foregoing obligation is such that whereas heretofore, to wit, on the 5th day of September, 1874, in the circuit court of the United States for the northern district of Illinois, then
183, 184 being held at the city of Chicago, in said district, the above-named obligees recovered by the judgment and consideration of the said court against the above-bounden obligors a decree for the dis-

missal at the costs of the plantiffs of a certain bill of complaint theretofore brought in said court by the said Henry W. Fuller and Isaac W. Barnum, against the said Enoch S. Yentzer and Walter Scates, from which said decree the said Fuller and Barnum thereupon prayed an appeal to the Supreme Court of the United States, which was allowed to them upon their filing a bond in the penal sum of five hundred dollars, conditioned as the law directs, with good and sufficient surety thereon, to be approved by the said circuit court.

Now, therefore, if the said Henry W. Fuller and Isaac W.
185, 186 Barnum shall well and truly prosecute their said appeal from the said decree of the said circuit court to effect, and shall answer all damages and costs that may be adjudged against them in case they shall fail to make their plea good in that behalf, then this obligation shall be void; otherwise to remain in full force and virtue.

HENRY W. FULLER. [SEAL.]
ISAAC W. BARNUM. [SEAL.]
FRANCIS A. STEVENS. [SEAL.]

(Endorsed:) Approved, Thomas Drummond. Filed Sept. 19, 1874. W. H. Bradley, cl'k.

And the said complainant, on the day and year last aforesaid, came and filed the following stipulation, to wit:

187, 188 UNITED STATES OF AMERICA, *ss:*

In the Supreme Court, of the October term, A. D. 1874.

HENRY W. FULLER AND ISAAC W. BARNUM
v.
ENOCH S. YENTZER AND WALTER SCATES.

Tuck-creaser patent. Case I. Appeal in equity from the circuit court for the northern district of Illinois.

Stipulation touching certificate of evidence.

The above-entitled cause is a bill in equity brought by the appellants against the appellees for alleged infringement of certain letters-patent. Said appeal was dismissed for want of equity on final hearing at the complainants' costs, and the complainants have appealed from
189, 190 such decree of dismissal to the Supreme Court of the United States. There was at the same time pending in said circuit court between the same parties another bill in equity for the alleged infringement of certain other letters-patent, which last-mentioned suit was at the same time disposed of by a like decree against the said complainants, from which they have appealed to the said Supreme Court. And there was also at the same time pending in said court a certain other bill in equity by the same complainants against one Herman B. Goodrich, for an alleged infringement of the same letters-patent which were involved in one of the above-mentioned suits against said Yentzer and Scates, which said last-mentioned suit was disposed of at
191, 192 the same time and by a like decree against the said complainants, from which they have also appealed to the said Supreme Court.

The letters-patent involved in the three cases above described all relate to what are known as tuck-creaser devices for use in sewing-machines, and the testimony in said three cases has been so taken and printed together as to save much needless trouble and expense, and largely to facilitate the proper understanding of each case and its relations to the others, and the illustration thereof by models and machine, and so that the same cannot be conveniently separated; and it now appears to the parties that the preparation of a separate certificate of evidence in each of said three causes would involve needless trouble and expense, and present the matters in controversy for decision
193, 194 less clearly to the said Supreme Court than they could be presented in one certificate of evidence to be used as occasion may require on the hearing of said appeals respectively in the said Supreme Court. It is, therefore, stipulated and agreed by and between the parties aforesaid to the said appeals that one certificate of evidence shall be made as aforesaid, to be used in each of the above-named causes as the occasion may require, with the same rights, privileges, and advantages to each party as though the testimony relating to each case had been embodied in a separate certificate of evidence. It is not understood that by this stipulation for one certificate of evidence for the three cases the same are to be deemed consolidated or so united as to be heard
195, 196 as one case; but the same are to be separately docketed with separate transcripts of the pleadings therein respectively.

It is further stipulated and agreed by and between the parties that if, after the making of said certificate and the docketing of said causes, it shall be discovered that any matter or thing properly belonging thereto or to the record of said causes, or either of them, shall have been by any inadvertence or mistake omitted or overlooked, the same shall be supplied without prejudice to either party, and at the least practica'l' expense and delay.

It is further stipulated and agreed by and between the parties that the models and other exhibits used upon the hearing of said causes respectively in the said circuit court, or duplicates thereof, shall
197, 198 be produced by the parties who offered the same respectively in said circuit court upon the hearing of said appeals in the said Supreme Court, and there be identified either by admission of the opposite party or by affidavit, as the occasion may require.

It is further stipulated and agreed that if the said appellants shall require any further time to file the records in said appeals than is allowed by the rules of said Supreme Court, they may have such time extended on their application ex parte, and without notice, to any date more than thirty days next after the first day of the next term of said court.

It is also stipulated and agreed that if for any cause whatsoever the said Supreme Court should be pleased to require and other or
199, 200 further certificate of evidence in said cases, or any or either of them, the same shall, upon such requisition, be supplied with the least practica'l' expense and delay, and without any unnecessary prejudice to either party.

It is further stipulated and agreed that upon the filing of this stipulation the clerk of the said Supreme Court is authorized and directed to enter for the respective parties the appearance of the counsel by whom this stipulation is signed.

And it is further stipulated and ageed by and between the parties that said causes were duly heard and decided as upon their merits on bill, answer, replication, and evidence, according to the course of the

court in that behalf, and that no objection shall be taken o. 201, 202 heard for the omission from the record, if any, of any matter or thing not material to a decision of said appeals upon the very merits of the controversy between the parties; and printed copies of the letters-patent in controversy may be used upon the hearing of said appeals, subject to the right to object to the genuineness or correctness of the same if occasion therefor shall appear.

Chicago, Sep. 10, 1874.

CHARLES C. BONNEY,
Counsel for Appellants, Defendants in the Court below.
SCATES & WHITNEY,
Counsel for Appellants, Complainants in the Court below.

(Endorsed:) Filed Sept. 19, 1874. Wm. H. Bradley, clerk.

203, 204 And afterwards, to wit, on the day and year last aforesaid, the said complainant, by his solicitors, came and filed the following certificate of evidence, which is in the words and figures following, to wit:

UNITED STATES OF AMERICA, *ss:*

In the Supreme Court, of the October term, A. D. 1874.

HENRY W. FULLER AND ISAAC W. BARNUM *v.* ENOCH S. YENTZER AND WALTER SCATES. } Tuck-creaser patent. Case I.

HENRY W. FULLER AND ISAAC W. BARNUM *v.* ENOCH S. YENTZER AND WALTER SCATES. } Tuck-creaser patent. Case II.

205, 206 HENRY W. FULLER AND ISAAC W. Barnum *v.* HERMAN B. GOODRICH. } Tuck-creaser patent. Case III.

Appeals in equity from the circuit court for the northern district of Illinois.

Certificate of evidence for said appeals.

NORTHERN DISTRICT OF ILLINOIS, *ss:*

I, Thomas Drummond, presiding judge of the circuit court of the United States for said district, do hereby certify to the said Supreme Court that the above-entitled causes respectively were heard and decided by me upon the bills of complaint, answers, replications, and evidence in the same respectively, and that final decrees were entered therein on or about the 5th day of September, A. D. 1874, being one of the days of the July term of said court for that year, and that

207, 208 for the greater convenience of the court and counsel, and to save unnecessary expense, it was found expedient during the progress of said cases to take the testimony of each in connection with that for the others, and to illustrate the same by one set of models, machines, and other exhibits, and that this was accordingly done; but said cases were not consolidated, but were otherwise kept separate from each other.

And I do further certify that all the evidence upon which the said causes respectively were heard and decided by me, together with the objections made and exceptions saved to the same, is contained in the printed book of 142 pages annexed to this certificate and made a part hereof, entitled as follows:

[Printed book.]

209 UNITED STATES OF AMERICA,
Northern District of Illinois:

United States circuit court, northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } In chancery, for infringement of patent. Case No. P.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
ENOCH S. YENTZER AND WALTER SCATES.
} In chancery, for infringement of patent. Case No. 2.

210 HENRY W. FULLER AND ISAAC W. BARNUM
vs.
HERMAN B. GOODRICH.
} In chancery, for infringement of patent. Case No. 3.

Depositions taken, pursuant to the order of the court, in behalf of the complainants, before John Oakey, a notary public, at the office of E. B. Barnum, in the city of New York, commencing August 29th, 1873.

Present for the complainants, E. B. Barnum, esq., and for the defendants, Walter B. Scates, esq.

The complainants, alleging that the legal title to the letters-patent dated respectively June 5th, 1860, and re-issue of Rose patent dated December 1st, 1868, has, since the commencement of this suit, to wit, on the fifteenth of May, 1873, been conveyed and transferred by said Henry W. Fuller to said Isaac W. Barnum, and that said Fuller remains and is interested in said letters-patent to the extent of one-half the net profits thereof, and that said complainants, Fuller and Barnum, are equally and jointly interested in any recovery which may be had herein; the defendants admit that the legal title to said letters-patent is now vested in the complainant Isaac W. Barnum.

The complainants in the first-named case called DANIEL BARNUM as a witness in their behalf, who, being duly sworn, testified as follows:

1st Q. What is your name, age, occupation, and residence?

211 A. My name is Daniel Barnum. I am 74 years old. I reside at Brooklyn, N. Y. I have been engaged for many years in the manufacture and sale of sewing-machine attachments of my own invention. I am a practical mechanic, and have been through the most of my life; am well acquainted with sewing-machines and attachments used on them, and well known as an inventor; and been frequently employed, during the last thirty years, as an expert in patent cases. I have been familiar with Henry W. Fuller's invention of the tuck-creaser. The first that I knew of it was, I think, in 1862. He was then engaged in getting them made at the same place where I was also getting an attachment of my own made, and from that time to this have been conversant with the fact that he has been, during that time, engaged in the manufacture and sale of the said tuck-creaser. I have been familiar, also, with various changes in the art of tuck-creasing made by himself and others.

2nd Q. Have you examined letters-patent dated June 5th, 1860, issued to Henry W. Fuller and Anthony W. Goodell, for improvements in means for marking cloth in sewing-machines, and are you familiar with the specification thereof?

A. I have examined the patent named repeatedly, and think I am familiar with the means used, as described in said patent.

3d Q. Is the description of the invention in the specification thereof sufficiently full and clear to enable a skilled mechanic to make the machine therein specified?

A. Yes; in my opinion it is.

4th Q. From your knowledge of the art, would a machine made in accordance with the specification be practically operative?

A. I think it would.

5th Q. Look at model Defendants' Exhibit No. 4, and state whether it represents the machine described in the said specification.

A. I think it does.

212 6th Q. State what you understand to be the invention of Fuller, as described in that patent.

A. As I understand it, the invention of Fuller, as set forth in his patent of June 5th, 1860, is found in the idea, first developed by him, of forming a crease in cloth for making tucks, in a line parallel with the seam of a preceding tuck being sewed on a sewing-machine and simultaneously with it, by means of markers placed on opposite sides of the cloth, one of which has a notch and the other a point fitting into it; the under one being connected with the bed-plate of the machine, and the other operated by the needle-arm or some of the moving parts of the machine, and so arranged in its connections as to vibrate in unison or simultaneously with the needle, and to press the cloth into the notch while the needle is in the cloth; and thus, by a succession of vibrations as the feed advances the cloth, to form a crease parallel to the line of sewing ready for folding for the next tuck.

The invention in also applicable to plaiting for shirt-bosoms, when the sewing is done through three thicknesses, while tucks have but two.

The drawings show the markers arranged for plaits, and for this purpose they are placed on the inside of the needle; but for making tucks the markers are to be placed outside of or in front of the needle, the arrangements for plaiting being different from those for the tucking, while the operation of the markers are the same. The invention also relates to marking a line with a pencil or similar article pressing on the cloth, this arrangement being for quilting or stitching.

I thus find the invention to be for three distinct purposes, each purpose requiring changes in the mechanism for producing the several results, which changes in mechanism effect no change of principle in the invention.

As I have stated, the drawings show the markers arranged for plaiting, and they are placed inside of the needle; the pencil for marking the lines is also shown inside of the needle. This arrangement is not applicable to tucking.

213 The specifications state that for tucking the markers should extend on the other side of the needle-arm, and for this purpose the bar which carries the marker can be fitted in any convenient manner; the arm *e* also requires to be changed to the other side in order to place the marking-points on that side. In doing this, I would remove the pencil and the bar *g*, with its markers, and place the markers on the arm *e* when reversed, and thus dispensing with all the parts except the arm *e*, and the markers and the bed-plate of the tucker. The specification states that "the marking point or notch *i* or *k*, or both, might be placed on the arm *e*, and provided with a suitable spring between the bar and point. The manner of attaching the parts to the sewing-machine must also be varied as circumstances may require for different characters of sewing-machines, or for different kind of work to be performed, and a vibrating motion may be given to the markers by any other device besides the needle-bar."

The specification also provides for alternating the notch and point so as to crease or form a ridge either above or below the cloth, as may be required. The point *m* is formed somewhat similar to the point *i*, both being thin, rounded, and blunt, chisel-forms, so as not to injure or catch in the cloth, and this point *m* may be fitted to slide in a groove for ad-

justing the same to the desired distance from the needle, or several of these points may be formed or attached permanently on a plate at short distances apart. The patent also provides that the notch may be formed of soft material, such as leather; the point being pressed into it will form its own notch and make a crease.

7th Q. Look at the model now shown you, and state whether that is constructed in accordance with the specification of the 1860 patent.

A. It is.

(Complainants offer the said model in evidence, marked "Exhibit B.")

214 8th Q. Was that model constructed under your supervision?

A. One part of it. The part which was made under my instruction was the part having a spring carrying a notch.

9th Q. Please state what parts of the specification describe such a model.

A. The specification states that the notch which forms a part that I had constructed might be placed directly on the arm *e*, and provided with a suitable spring between the bar and notch or point, as it is shown here. "The manner of attaching the parts to the sewing-machine must also be varied as circumstances may require for different characters of sewing-machines, or for different kinds of work to be performed."

One of the changes described in another part of the specification is in this language: "For tucking, the markers should extend on the other side of the needle-arm, and for this purpose the bar *g* can be fitted in any convenient manner; but where a holder or arm to the presser-foot is used in the manner shown, the hole into which said bar sets may pass through the same, and be provided with a clamping-screw, so that said bar *g* can be inserted from the other side, and the plate *l* also stands on the other side of the needle, a second slot, 3, being provided for this purpose. The arm *e* also requires to be changed to the other side in order to take the marking-points *i* and *n*."

The specification states in another place, "*l* is a plate screwed on to the bed *a*, and carrying the adjustable point *m* and leather *n* or its equivalent. The point *m* is formed somewhat similar to the point *i*, both being thin, rounded, and blunt, chisel-forms, so as not to injure or catch in the cloth, and this point *m* may be fitted to slide in a groove for adjusting the same to the desired distance from the needle, or several of these points may be formed or attached permanently on a plate, at short distances apart. The leather *n* is also represented as adjustable, and it forms a crease into which the point *i* acts, and said leather may
215 be set into a small metal holder, or it may be formed as a strip of sufficient length to comprise the distance to which the part *i* may be adjusted. The operation of this part is illustrated in figures 4 and 5, where the marking parts *i n* and *k m* are shown in larger size, and the fold or crease produced in the cloth is also represented. The parts *i n* produce a downward crease, and the parts *k m* an upward crease when the cloth is exposed to the action of these parts by passing between the same, and in order to give motion to these markers the bar or arm *e* strikes on the spring part of the arms *h h*, (see Fig. 3,) pressing the surfaces together and crumping or creasing the cloth."

10th Q. With the directions in the said specification as a guide, could an ordinary mechanic make a machine like model Exhibit B without the exercise of invention?

A. Yes; an ordinary mechanic skilled in a knowledge of a sewing-machine could do it.

11th Q. Have you seen the model Exhibit B in use for creasing purposes, or one like it?

A. I have seen one like it attached to a sewing-machine and used for making creases in cloth, and a handsome crease made.

12th Q. In your opinion, is model Exhibit B a practical working tuck-creaser, and will it do the work called for by the specification?

A. It is a practical trück-creaser, and will do the work called for in the specification so far as to make creases in cloth for tucks, but not for sewing three-ply plaits for shirt-bosoms, or for making a line for quilting.

13th Q. What constitute the essential elements or parts of the complainant's invention as applied to tuck-creasing?

A. One essential part is a plate carrying a point to be attached to the bed-plate of a sewing-machine, and an arm carrying a notch operated by the needle-arm or some moving part of the sewing-machine to vibrate in unison with the needle, the said notch being adjustable to and with the point attached to the bed-plate, with a suitable spring interposed
216 between the bar and the notch; the spring being interposed to meet or compensate for any inequalities in the material to be sewed. In case the material was of even thickness, the spring spoken of would not be material, and in that case it is not an essential element.

14th Q. Provided the arm itself was adjustable, or provided any other means of adjustment of the other marker or notch was used, would the requirements of your last answer be met?

A. If the arm *e* carrying the marker were itself adjustable, the requirement would be met. Any means by which the upper and lower markers can be brought into proper relations to each other with material of uniform thickness the markers could be successfully used.

15th Q. State how the crease is made in Fuller's invention.

A. By the cloth being forced into a notch by a point pressing the cloth into it by successive vibrations of the notch, as it is moved by the feed of the sewing-machine; the notch, being the vibrating part, forces the cloth over the point. The patent provides for a crease being made either above or below the cloth, by reversing the notch and point.

(Complainant offers in evidence models marked Exhibits C, D, F, and G.)

16th Q. Look at Exhibits C, D, F, and G, and defendants' Exhibits 6, 7, 8, 9, 16, and 17, and state whether they embody the invention of complainant Fuller, and state your reasons for your conclusions.

A. They embody the invention of Fuller. My reasons are that they each have a point or blade to be attached to the bed-plate of the machine, and they each have a notch operated by a moving part of the machine which vibrates in unison or simultaneously with the vibrations of the needle.

17th Q. Do you find in them all the mechanical parts which constitute the essential elements of Fuller's invention?

217 A. I do.

18th Q. Look at Defendants' exhibits 2 X, 3, and 18, being machines made by defendants Yentzer and Scates, and state whether you find embodied in them the invention of Fuller, and state, if so, your reasons for your conclusions.

A. I do find the invention of Fuller in 2 X and in 18, these each having a point or blade with a notch substantially the same as in the Fuller invention, each having the bed-plate carrying the under marker to be attached to the bed-plate of the sewing-machine, and each having upper markers operated by the needle-arm, simultaneously with the vibrations

of the needle, the notch being a spring-notch, which is the same in principle as that described in Fuller's patent.

In No. 3 of defendants' exhibits I find a notch and point reversed, and which would make a reverse crease. It also has a plate carrying the under marker to be attached to the bed-plate of the sewing-machine, and also an upper marker operated by the needle-arm and vibrating simultaneously with the needle.

19th Q. Do you find in these exhibits 2 X, 3, and 18 the mechanical parts which constitute the essential elements of Fuller's invention?

(Objected to as leading.)

A. I do.

20th Q. State what is the method of making the crease in these exhibits.

A. The needle-arm presses the notch on to the cloth which folds down on the point or blade.

21st Q. State how, in the Fuller invention, the width of tuck was obtained or determined.

A. By a gauge—an ordinary sewing-machine gauge.

22d Q. State to the best of your knowledge at what time a gauge became incorporated with the tucker as a part thereof.

A. I have no recollection of seeing a gauge embodied with a
218 tuck-creaser at any particular time; the first that I remember was attached to a tucker of Fuller's make in 1866 or 1865.

23d Q. State, if you know, when the smoothing-finger was first incorporated with the tucker as a part thereof.

A. I don't know when it was first so incorporated, but I think in 1867 or 1868.

24th Q. Look at letters-patent granted to C. D. Wheeler, February 14, 1860, and the certified model thereof, marked "Defendants' exhibit No. 5," and state the nature of said invention, and whether it embodies the invention of the complainant Fuller, as described in the specification of his letters-patent dated June 5, 1860.

A. C. D. Wheeler's patent is stated by himself to be for an improved marking-gauge, and for marking and measuring tucks, folds, &c., &c., and he says that "the object of my invention consists in combining with a sliding rule and guiding surface a spring-point for the purpose of measuring and marking tucks, folds, &c., which are extensively used in the manufacture of ladies' and children's clothing, shirt-bosoms, and other purposes." It is a device, as shown by the model, to be applied to the under side of the table; it is fitted with a sliding rule with a spring-point and notch filled with soft metal, and adjustable to any width by the scale, and fastened by a set-screw. It is designed, as stated in the patent, for measuring and marking folds of cloth by hand, and to facilitate the method of marking the same or similar folds, which usually, at that time, was done by measuring the distance by a card and needle, by ladies, at intervals or distance sufficient to enable them to fold cloth by the hand, folding it down at the points or marks made by the needle. It does not embody the invention of H. W. Fuller as described in said patent.

25th Q. State your reasons for the latter conclusion.

A. My reasons are, that it is designed to be a hand operation exclusively; it is not connected in any way with a sewing-machine or with
any moving mechanism or machine. It is not designed for making
219 a crease of any kind, but, as is stated in the patent, is simply a marker, and its design being simply to facilitate a hand operation, as I have before explained.

Direct examination closed.

UNITED STATES OF AMERICA,
Northern District of Illinois:

HENRY W. FULLER, ISAAC W. BARNUM,
vs.
ENOCH S. YENTZER, WALTER SCATES. } Case No. 2.

The complainants in this suit called as a witness in their behalf Daniel Barnum, and offered as a part of his examination-in-chief his affidavit, filed in this case June 24th, 1872.

CITY, COUNTY, AND STATE OF NEW YORK:

DANIEL BARNUM, being duly sworn, says that he resides at Brooklyn, New York; that he has been engaged for many years in the manufacture of sewing-machine attachments, is a practical mechanic, is thoroughly acquainted with sewing-machines, their mechanism and attachments, is well known as an inventor for the last thirty years, and
220 has been during said period frequently examined as a mechanical expert in patent cases.

That he has examined and is perfectly familiar with reissued letters-patent No. 3218, issued to the complainant assignee by mesne assignments of Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines.

That said improvement consists of a device for creasing cloth while being sewed by a sewing-machine, so that it can be readily folded and sewed into a tuck. It also involves certain improvements in the mechanism by which the creasing device is operated, and, among other things, in the connection or combination of the upper and lower parts of a tuck-creaser, so that they are together adjustable in their relations with reference to the needle of a sewing-machine.

By this invention the necessity of different attachments and adjustments which prevailed prior to Rose, by reason of the fact that the tuck-creasers were made in separate parts, was obviated, and an important advance was made in the art; so much so, that all tuck-creasers now made are built with their parts connected, and this feature is practically essential in a successful tuck-creaser.

The said improvement also comprises the use of a spring to lift the upper part of the creasing device from the cloth while the feed of the sewing-machine was in operation.

And deponent further says that he has examined a tuck-creasing device, stamped, "Pat. Oct. 26, 1869, April 11, 1871," made by the defendants, and is thoroughly acquainted therewith.

That he finds therein a tuck-creasing mechanism having its upper and lower parts so connected that they are together adjustable with reference to the needle of a sewing-machine when in operation, and they require but one attachment to the sewing-machine.

The spring to carry or lift the upper part of the creasing device from the cloth while the feed of the sewing-machine was in operation.
221 That in these two features the device of the defendant is precisely identical, in construction, mode of operation, principle, and result, with the invention of said Rose secured by said reissued letters-patent.

DANIEL BARNUM.

Sworn before me this 7th day of June, 1872.

E. B. BARNUM,
Notary Public N. Y. C.

1st Q. State whether the defendants' tuck-creaser mentioned in your affidavit above referred to was identically similar to defendants' Exhibit No. 3?

A. I believe it is.

2d Q. Look at defendants' Exhibits 2 X and 18, and state whether they are substantially similar, in principle, construction, and mode of operation, to defendants' Exhibit No. 3 in the particulars noted in that affidavit.

A. I believe they are; in my opinion they are.

3d Q. State whether, in your opinion, the features of the Rose invention, as described in the sixth claim, are affected or changed by a variation in the means or place of attachment of the tuck-creaser to the sewing-machine.

A. I think they are not changed.

4th Q. State whether, in the defendants' Exhibits Nos. 2 X, 3, and 18, you find the upper and lower parts connected together so as to obtain a unity of adjustment of those parts on the bed of the machine to or from the needle.

A. I do find the upper and lower parts connected with a unity of adjustment to or from the needle.

5th Q. What functions does the clamping-block, or part of these exhibits by which the tucker proper is held, perform?

A. It performs the function of holding the tucker at any given point, while it permits of its adjustment to or from the needle. In Ex-
222 hibit 18 it is connected with the bed-plate of the machine by a set-screw, and is thus firmly attached to it.

6th Q. Does it perform the same office as the slot in the Rose bed-plate?

(Objected to as leading. Question withdrawn, and question 5 repeated.)

A. In the other two the clamping-plate holds the tucker, and permits its adjustment of both upper and under parts to and from the needle in the same manner as in Exhibit 18, the difference being that instead of being fastened by a set-screw to the bed-plate of the machine, Nos. 3 and 2 X are fastened to the presser-foot or bar by a set-screw; when in ope - ation 2 X and 3 are supported by the bed-plate of the machine, and to that extent they are all identical. The clamping-blocks perform the same function as the slot in the bed-plate of the Rose invention for effecting the unity of adjustment.

Direct examination closed.

United States circuit court, northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
HERMAN B. GOODRICH. } Case No. 3.

The complainants in the above-entitled suit called as a witness
223 in their behalf Daniel Barnum, and offered as a part of his examination-in-chief his affidavit filed in this suit June 24th, 1872.

CITY, COUNTY, AND STATE OF NEW YORK:

DANIEL BARNUM, being duly sworn, says that he resides at Brooklyn, New York; that he has been engaged for many years in the manufacture of sewing-machine attachments, is a practical mechanic, is thoroughly acquainted with sewing-machines, their mechanism and attach-

ments, is well known as an inventor for the last thirty years, and has been during said period frequently examined as a mechanical expert in patent cases.

That he has examined and is perfectly familiar with re-issued letters-patent No. 3218, issued to the complainant, assignee by mesne assignments of Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines.

That said improvement consists of a device for creasing cloth by means of jaws so arranged that they will seize and pinch the cloth between their opposing surfaces. In the complainant's device the jaws are arranged in a vertical position with reference to the cloth, the inside jaw being practically stationary when in the act of creasing, and the outside jaw being arranged so as to move toward the other, carrying the cloth with it, which is then seized and pinched between the opposing surfaces while the needle is in the cloth and the feed at rest. As soon as the pinch is done the cloth is released by the opening of the jaws before the feed acts. This operation, continued as the cloth is fed, results in a well-defined crease parallel to the line of seam, and ready to be folded down for the succeeding tuck.

That said improvement also consists in the method of nipping or pinching the fabric being sewed, to form creases or ridges thereon, by means of jaws opened and closed at intervals to seize and pinch the fabric when at rest and then release it as the same is moved along intermittently by a suitable feeding mechanism. That said im-
224 provement also consists in certain details of construction, arrangement, and combination of mechanism for operating creasing devices; and among others—

1st. A spring for lifting the upper part of the creasing device from the cloth and allowing the jaws to open.

2d. A jointed lever carrying one of the pinching surfaces combined with a creasing device.

3d. The connection of the upper and lower parts of a tuck-creasing mechanism, making practically such a mechanism having all its parts connected and together adjustable as to its relation with the needle, by which means very valuable results are obtained. Tuck-creasing devices had been previously made in several parts requiring multiplied attachments and adjustments, but by the invention of Rose, in connecting the parts together, but one attachment became necessary, and the different parts bearing always the same relation to each other and to the needle, the different adjustments previously required were dispensed with.

4th. The combination of all the previous features in one mechanism.

And deponent further says he has examined a tuck-creasing device, stamped "H. B. Goodrich, Chicago, Ill., pat. Jan. 2, 1872," made by the defendant, and is thoroughly familiar therewith.

That therein he finds—

1st. The pinching jaws or surfaces arranged in a horizontal position, thus rendering it impossible for them to pick up the cloth themselves, requiring an additional device to bring the cloth between the pinching surfaces. The inside stationary jaw in the improvement of complainant is in this device laid flat upon the bed-plate, while the outside jaw is attached to end of the jointed lever as in the improvement of complainant. In operation the jointed lever is carried down by and with the needle-bar, and the cloth being forced into position by a thrust-finger provided for that purpose, is seized between the upper and under creasing surfaces and pinched while the needle is in the cloth and
225 the feed at rest, which operation, repeated as the cloth is fed in.

termittently by the feed-mechanism, results in a ridge or crease parallel to the line of seam.

And deponent further says that the only difference between the complainant's improvement and the defendant's device is, that defendant places the complainant's pinching jaws in a horizontal position instead of vertically, thereby preventing them from feeding themselves with the cloth, as well as pinching, and necessitating the employment of an additional device to accomplish what was readily done by the jaws themselves when used in a vertical position; and that in the change no new principle is involved nor new result obtained so far as the seizing and pinching of the cloth is concerned, nor is the change substantial in its character, the crease being obtained in the same manner and by the same means.

And deponent further says that he finds in the defendant's device also—

2nd. A coil spring arranged to carry the upper part of the creasing device away from the cloth while the feeding mechanism is in operation, and to permit the jaws to open, which spring is a mechanical equivalent for the flat spring used by the complainant to accomplish the same purpose.

3d. Also a jointed lever carrying at its outer end one of the pinching surfaces, precisely as in the improvement of complainant.

4th. That the upper and lower parts of the defendant's device are connected together, and has all its parts connected and adjustable with reference to the needle, being in this respect precisely like the improvement of the complainant.

5th. That there is the combination of all the previous features in one mechanism.

And deponent further says that, in the features enumerated, there is no substantial difference between the improvement of the com-
226 plainant and the device of the defendant, but the two devices, in construction, mode of operation, principle and result, are substantially identical.

DANIEL BARNUM.

Sworn before me this 7th day of June, 1872.

E. B. BARNUM,
Notary Public, N. Y. C.

1st Q. Look at defendants' exhibit No. 13, and state whether that is identically similar to the defendants' device mentioned and described by you in said affidavit.

A. It is.

2d Q. Look at defendants' exhibit No. 14, and state whether that is substantially similar to defendants' exhibit No. 13 in the particulars noted and described in the said affidavit.

A. In my opinion it is.

3d Q. State whether the spur in No. 14 is an equivalent for the sliding folder in 13.

A. In my opinion it is.

4th Q. State whether the turned-under end of the lever-arm in No. 14 is an equivalent for the hammer-shaped end of the lever-arm in No. 13.

A. I think it is, substantially, as they both seize the cloth and pinch it to form a crease.

5th Q. State whether, in your opinion, the upper opposing surfaces

in Exhibits 13 and 14 act as hammers, and give your reasons for your conclusions.

A. In my opinion they do not act as hammers simply. Exhibit 13 has an arrangement for an upper opposing surface representing somewhat the face of a hammer, but in operation it does not give the effect of a hammer, inasmuch as the spiral spring acts to relieve the force of the blow, and does not expend the power which operates it. The power which operates it continues in its action, and produces a gripping or jaw-like action, which pinches the edge to form a crease, instead of a blow like a hammer.

227 In No. 14 the turned-up end seizes the cloth and the force applied causes it to pinch the edge, increasing in its force until the creasing action is finished by the maximum pressure produced by the needle-arm. The maximum pressure in both is found at the finishing of the downward stroke of the needle-bar.

6th Q. State how the crease is made in the Rose invention.

A. In the Rose invention the crease is made on one side of the cloth by opposing surfaces seizing the cloth in a double condition, and pinching the edge of the fold, in contradistinction to markers, on opposite sides to the cloth.

7th Q. State whether the crease is made by defendants' exhibits Nos. 13 and 14 in the same manner.

A. Substantially, in my opinion, it is.

8th Q. Does the position in which the jaws are placed affect the principle or operation of Rose's invention, provided they do seize and compress the cloth in a doubled condition?

A. I think not, so long as they pinch the edge and form a crease simultaneously.

9th Q. Look at defendants' exhibits 11, 12, and 15, and state whether they embody the Rose invention as described in the second claim.

A. I think they do.

10th Q. Do they as far as the third claim is concerned?

A. They do.

11th Q. Do they as far as the fourth claim is concerned?

A. 11 and and 12 do, but 15 does not.

Examination adjourned until Monday, September 1st, at 10 a. m.

228 MONDAY, *September* 1, 1873—10 *a. m.*

Examination resumed pursuant to adjournment.

12th Q. Do they as far as the sixth claim is concerned?

A. No. 11 does not; 12 and 15 do.

(Complainant offers in evidence machines manufactured and sold by them, marked "Exhibits H, J, K, L, M, and N."

13th Q. Look at the last-mentioned exhibits, and state whether they embody the invention of Rose, as described in the second claim.

A. They do.

14th Q. Do they as far as the fourth claim is concerned?

A. They do, all except M and N.

15th Q. Do they as far as the sixth claim is concerned?

A. H, J, and K do not; L, M, and N do.

Direct examination closed.

Cross-examined by Walter B. Scates:

HENRY W. FULLER AND ISAAC W. BARNUM } Case No. 1.
vs.
ENOCH S. YENTZER AND WALTER SCATES. }

1st X Q. What relation are you to the complainant?

229 A. I. W. Barnum is my son. I am not related to Mr. Fuller, the other complainant.

2d X Q. What relation, if any, have you sustained to Mr. Fuller in the management of his patent-interests heretofore at any time?

A. I have had no connection with Mr. Fuller in relation to the management of his patent, except to give my opinion as an expert.

3d X Q. State what, in your opinion, are the essential elements patented by Mr. Fuller as a tuck-marker.

A. In my opinion the elements consist primarily and mainly in placing markers for forming a crease in cloth on opposite sides thereof, and in attaching one of them to the bed-plate of the machine, and the other to be operated by the needle-arm or some moving part of the machine, and so arranging the markers as to come together, and the upper one to be vibrated in unison and simultaneously with the vibrations of the needle.

4th X Q. Do you understand his patent as including only the particular mechanism specified in the specifications of the patent and shown by his model filed in the Patent-Office, or as including any and all forms of mechanisms by which the same results may be attained?

A. I consider his patent as covering any and all mechanisms that may be substituted as equivalents for those described in the patent, and which will produce the same results substantially in the same way; and that it is not limited to the particular mechanisms described in the patent.

5th X Q. Do you consider any and all forms of mechanism, however different in their parts and as a whole from those referred to in the former question—as those referred to in Fuller's patent, in question four above—as equivalent when the same results are attained by them?

A. No, unless they produce those results in substantially the same way; if they do, I consider them equivalents.

230 6th X Q. Have all your answers on the examination-in-chief, in which you state that the tuckers Exhibits 2 X, 3, and 18 of defendants embody the elements of the Fuller patent, been based upon the above understanding by you of the extent of the Fuller patent?

A. They are based on the fact that I find in each of them the essential elements described, and that they are operated substantially in the same way as in the Fuller patent—considering that 2 X and 3, though attached to the presser-foot or bar when in operation, rest upon the bed-plate. My former answers have been based upon that understanding of the patent.

7th X Q. Do you find in the several parts of the tuckers Exhibits 2 X, 3, and 18, and in the combination of them as a whole, or in the one or the other, any substantial similarity in form described in the Fuller patent and model? And, if yea, state wherein.

A. I do find markers on opposite sides of the cloth in 2 X, 3, and 18, which are substantially similar, but not exact in form with the markers shown in Fuller's model; the point in 2 X and 18 being identical in form, and the notch being a spring notch, which is substantially identical, the forms for operating them being different, but operating substantially

in the same way. In No. 3 the markers are substantially the same, but placed in a reverse position.

8th X Q. Look upon model Exhibit No. 5, and state if the forms of the several parts and as a whole, and the markers thereon, are not substantially like the several like parts of Exhibits 2 X, 3, and 18; if not, state wherein they differ.

A. The form of the point is substantially similar to the point in No. 3. The notch is not of the same form, it being a recess formed by the point, not for making a crease, but for perforating the cloth; while in No. 3 there is a slot, and the point is designed for pressing the cloth into it by a blunt point, and thus forming a crease. In Exhibits
231 2 X and 18 there is a spring notch which is unlike the notch in figure 5. They are unlike, in form, the points in No. 5. Nos. 2 X, 3, and 18 are, as a whole, substantially unlike No. 5. They are also unlike in their several parts. They differ in 18 and 2 X in having the notch attached to a spring lever. By lever I mean a piece which acts as a smoother, holding the notch over the point to be operated by a spring lever, with a slot through it, to be attached to the needle-bar; while the spring-lever arm in No. 5 carries a point and a button, to be operated or used by the hand. In No. 3 the spring lever carries a point to be operated by the needle-arm; and in those parts they differ from the parts of No. 5.. No. 5 has a bed-plate the same in form, for carrying the notch, as 2 X and 18, except that 2 X and 18 have an extension-plate for carrying the point.

9th X Q. Look upon patent of February 14th, 1860, granted C. D. Wheeler, and model No. 5, now shown to you, and state if you do not find in the specifications, drawings, and model the essential elements of a tuck-marker.

A. I do find the essential elements of a tuck-marker, to be used by hand, complete, but not of a tuck-creaser.

10th X Q. State whether, in your opinion, the arrangement of the upper and lower parts of Exhibits 2 X, 3, and 18, their several forms, and the forms and arrangements of the markers thereon, are not respectively substantial equivalents to the like parts, forms, and arrangements of Exhibit No. 5 as and for tuck-markers.

A. They are not substantially like No. 5 in their arrangements. The question is so stated that it is difficult to draw the comparison so as to make the answer to meet all the conditions of the question. Not as it is.

11th X Q. Are not the markers in Nos. 2 X, 3, and 18 substantial equivalents to the markers in No. 5, for tuck-marking?

A. Not in their several relations.

12th X Q. Are they not substantial equivalents in form?

232 A. They might be so if they were substituted and placed in No. 5, to be operated by hand; but as they are constructed to be used for a tuck-creaser, they are not equivalents in any sense. No. 5 is not a tuck-creaser.

13th X Q. Could not the markers in model No. 4 be substituted for those in No. 5, and used for tuck-marking?

A. They might for marking by hand, as in No. 5, being detached entirely from the sewing-machine.

14th X Q. Could not the form and substance of the markers in No. 5 be used in No. 4 in marking cloth with the latter mechanism?

A. If simply the markers in No. 5 were to be detached from No. 5 and attached, the under marker to the bed-plate and the upper marker operated by some moving part of the sewing-machine, and so arranged

as to vibrate simultaneously with the vibration of the needle, such markers might be so used, but that would not be like No. 5.

15th X Q. Question repeated.

A. Yes.

16th X Q. If they could be so used, as to form and substance, are not the markers in No. 4 equivalent to those in No. 5 as markers?

A. No.

17th X Q. In your answer to question 6 of the examination-in-chief you speak of attaching the upper marker to the needle-arm or moving part of the machine. State if that can be done under any directions given in the specifications, or if it can be done at all without reconstruction or invention, and if you say it can, state how.

A. Yes, undoubtedly; and it can be done by following the instructions of the specifications. I would change the arm *e*, which itself is attached to the needle-arm, to the other side from that which is shown in the model and drawing, and screw it fast, which makes it a part of the needle-arm, moving with it. I would then take the clamp which holds the pencil *f* to *e*, and attach or substitute one of the markers for
233 the pencil in its place, and screw it fast to *e*, and thus attach it to the needle-arm, a suitable spring being interposed between bar *e* and the marker.

18th X Q. Does paragraph in specification beginning "It will be evident that the marking notch or point *i* or *k*, or both, might be placed directly on the arm *e* and provided with a suitable spring between the bar and the point," contain the directions you refer to in your last answer, and all the directions given, by which the mode of placing the marking point or notch, or attaching it to the arm *e* or to the needle-arm as you have said in your answers to questions 6, 9, 11, and 12 in chief?

A. It does not contain all. In the answers referred to I have pointed out other parts of the specification which, with the drawings and models, would enable any skillful mechanic well acquainted with the art of manufacturing and using sewing-machines to make and apply the same, as I have before stated in the several answers given. I do not find specific instructions given in the specification for making, by the measure of a rule or compass, any one single part of the invention; but I do find by the specification and drawing, and the descriptions contained therein, sufficient information to enable any skillful mechanic to make the device with any changes necessary for the purpose intended. Instead of specific directions a large discretion is given to the skillful mechanic.

19th X Q. Do the specifications give any direction or make any suggestion for affecting an adjustment of the markers by an adjustment or moving of the arm *e* for that purpose?

A. No.

20th X Q. Do you understand, and is it your opinion, that Fuller's patent includes and covers the form of the notch and blade, or their equivalents, as to the form of the markers?

A. It is my opinion that Fuller's patent includes and covers a notch and blade irrespective of form, when either a notch or blade is connected with the plate of a sewing-machine, and the other connected with
234 a needle-arm or other moving part of a sewing-machine, and arranged so as to vibrate simultaneously with the vibrations of a sewing-machine needle for creasing cloth for tucks.

21st X Q. Have all your answers to questions in-chief, where you have said "there was a substantial similarity in the complainants' and defend-

ants' mechanism," been based upon this construction of Fuller's patent?

A. Yes, unquestionably.

22d X Q. Were a notch and blade patentable, in your opinion, at the date of patent to Mr. Fuller?

(Objected to as incompetent.)

A. Not simply as a notch and blade per se, or irrespective of its connections, but that they were patentable in connection with other mechanism for producing certain results.

23d X Q. Independent and apart from its attachment to a sewing-machine, does not the Wheeler device No. 5 contain all the essential elements for tuck-marking that are to be found in Exhibits C, D, G, M, Nos. 6, 7, 8, 9, 16, and 17, 2 X, 3, and 18, or their substantial equivalents?

A. No, sir.

24th X Q. Has not No. 5 a bed-plate carrying the marker equivalent to a notch or slot?

A. It has a bar having a recess, which might be equivalent to a notch or slot in certain relations.

25th X Q. Has it not an upper spring-arm permanently fastened to a bed-plate, carrying a marking point equivalent to a blade?

A. No, it carries a point.

26th X Q. Is not the bed-plate and upper spring-arm carrying the markers adjustable together as to the width between the line of marks to be made for a new tuck and the edge of the former tuck?

A. Yes.

27th X Q. Was not Wheeler's tuck-marking device the first within your knowledge of such adjustability?

235 A. Yes.

Adjourned to Tuesday morning, September 2nd, at 10 o'clock.

TUESDAY MORNING, *September 2nd*, 1873.

Cross-examination resumed at 10 a. m., pursuant to adjournment,

28th X Q. Was it not also the first to incorporate a gauge to measure the width of tuck with a tuck-marking device?

A. So far as I know, yes.

29th X Q. Have not models Nos. 1 and 3 sharp points as the upper marker, precisely or substantially like the point as the upper maker in No. 5?

A. As limited to the question of points simply, without reference to any means of marking or using them, yes.

30th X Q. If the points in Nos. 1 and 3 and No. 5 are substantially alike, how do you reconcile your answer to question' No. 18 and 19 in chief, in which you say No. 2 X, 3, and 18 are substantially the same with Fuller's No. 4, and in X questions 23 and 25 you say the point in the spring-arm of No. 5 is not equivalent to a blade as in C, D, G, M, and Nos. 6, 7, 8, 9, 16, 17, 2 X, 3, and 18?

A. In interrogatory number 18 my answer refers to 2 X, 3, and 18, as tuck-creasers embodying the parts for connecting and operating, by a sewing-machine, the several devices, and not for the markers simply; and in interrogatory 19 for the same reason. I have nowhere said that Fuller's invention consisted of markers alone, or when disconnected from the sewing-machine, and when not operated or to be operated by a sewing-machine. In my answer to X question 23 I answered, "No,

236 sir," for the reason that I consider the vibrations produced by a sewing-machine to be necessary to constitute a tuck-marker, or as I understand Fuller's invention or its essentials. In X ques-

tion 25 I answered, "No," for the reason that a sharp point is not equivalent for a blade.

31st X Q. How can you reconcile your answers to interrogatories 18 and 19 in chief with your answer to X question 23, so far as the same relates to Exhibits Nos. 1 and 3, seeing No. 5 and Nos. 1 and 3 all have sharp, rounded points for an upper marker?

A. I see no conflict requiring reconciliation.

32d X Q. Do you wish to be understood as expressing your opinion, as an expert, that a sharp or blunt rounded point, as on No. 5, to be operated by hand, is not equivalent or substantially like the points on Nos. 1 and 3, to be operated by the needle-arm on a sewing-machine?

A. As an expert, I will say that a blunt rounded point, as in No. 5, in itself considered, is substantially like No. 3, but is not substantially like No. 1. The points in No. 1 are sharp needle-points, which would perforate the cloth and not form a crease.

33d X Q. Have you not said, in answer to X interrogatory No. 8, that the rounded point in No. 5 would not make a crease or was not designed for creasing?

A. I have not said that it would not make a crease. I have said that it was not designed for making a crease, but for perforating the cloth.

34th X Q. How, then, can you say, in your answer to X interrogatory 32, that it is not substantially like No. 1, because the latter perforates the cloth?

A. It is not because of that solely, but because, in addition to perforating the cloth, it would make an indentation in the cloth, which, if it were applied to a sewing-machine and vibrated simultaneously with the needle, would make a crease.

35th X Q. Do you, in your answer to interrogatory 16 in chief, in which you say you find substantial elements of No. 4 in C, D, G, and Nos. 6, 7, 8, 9, 16, and 17, predicate or base that opinion upon the
237 fact of the markers being in the form of notches and blades, or upon the fact of their being so attached to the sewing-machine as to utilize the needle-arm as a motive power, or upon finding both these facts connected in each?

A. It is based on the fact that I find a notch, or point, or blade in each, and each upper marker operated by the needle-bar or some other moving part of a sewing-machine, so as to vibrate in unison or simultaneously with the vibrations of the needle.

36th X Q. If device No. 5 had a slot through its upper spring-arm, and it was so attached to a sewing-machine as to admit the needle to pass through the slot, and the spring-arm to be operated by and simultaneously with the vibrations of the needle-arm, would you then deem it as coming substantially within the principles of construction and mode of operation of Fuller's device No. 4?

A. With the changes proposed, it would not operate at all. Simply making a slot through the upper arm, and the needle to pass through it, the vibrations of the needle could not be made, as the needle would strike on the bed-plate, and the needle-arm could not reach the spring-arm; besides, as proposed, it could not be attached to the bed-plate; but if it were so changed in its construction as that it might be attached to the bed-plate of a sewing-machine, and so changed, also, that the needle could operate, and the upper part connected and operated by the needle-arm or other moving part of a sewing-machine so that the upper marker would vibrate in unison and simultaneously with the needle, No. 5 would then come substantially within the principles of construction and mode of operation of Fuller's device for tucking only.

37th X Q. If such alterations were made in the spring-arm of No. 5, and such attachment of his device to a sewing-machine made as stated in X interrogatory 36 and your answer thereto, what modification would you make in your answers to interrogatories 24 and 25 in chief?

A. My answer would be that it would cease to be Wheeler's de-
238 vice, and would become Fuller's invention by reason of the changes made, and for the reason that it would have no gauge, and for the reason also that it could not be worked by hand.

38th X Q. With your views and opinion of what is covered by and secured in Fuller's patent, would you not deem any device or mechanism for tuck-marking or creasing an infringement of said patent if it embodied:

1st. An under part attached to or resting upon the bed-plate of the sewing-machine, carrying the marker in the form of a notch or blade, or their equivalents, in forming a crease in cloth;

2nd. An upper part carrying one of like markers;

3rd. So attached to a sewing-machine that the upper part would vibrate simultaneously with the vibrations of the needle-bar, so as to bring the markers together on opposite sides of the cloth, marking or creasing the same while the feed was at rest and the needle in the cloth; and,

4th. Lift the upper marker from the cloth when the needle was withdrawn and the feed in motion?

A. I should.

39th X Q. If a device or mechanism, such as stated in the foregoing interrogatory, combined and embodied parts of any form of construction capable of and adapted to perform the functions and in the mode stated, would you not deem it an infringement of Fuller's patent, whatever might be the forms of the separate parts, or the manner or mode of their combination as a whole, or the mode or manner of attaching the device as a whole, or its parts, to a sewing-machine, or adjusting the markers relatively to the line of stitch?

A. As I understand Fuller's patent, or the invention covered by it, you may, in my opinion, remove all the mechanical parts described by him for operating it between the notch and point, and the place where the vibrating motion is obtained, and substitute therefor entirely different mechanical parts for producing the vibrations simultaneously with the needle, and you would still retain the invention, provided
239 the under marker was attached so as to be supported by the bed-plate of a sewing-machine and the upper marker was operated by and "made to vibrate simultaneously with the needle," and thus to form a crease parallel to the line of seam, while being sewed by a sewing-machine, for a preceding tuck. In my opinion, therefore, the mechanism or conditions stated in the question, if used on a sewing-machine as stated, would infringe Fuller's patent.

40th X Q. Do you not base or predicate the opinion you have expressed in your answers to interrogatories-in-chief Nos. 18 and 19 upon the grounds assumed in X interrogatories 38 and 39?

A. Substantially, yes.

United States circuit court, northern district of Illinois.

ISAAC W. BARNUM AND HENRY W. FULLER
vs.
ENOCH S. YENTZER AND WALTER SCATES. } Case No. 2.

Cross-examination of Daniel Barnum, by Walter B. Scates, solicitor for defendants.

1st X Q. Look upon the re-issued Rose patent to Fuller, of December 1,

1868, and specifications, drawings, and certified model No. 10,
240 and state what you understand to be included in and covered by said patent, so far as claims 1, 2, 5, 6, and 8 are concerned.

A. In the first claim it covers a device by means of jaws for creasing cloth, or for forming a ridge or ridges on fabrics to be afterwards folded in the line of such ridges. The 2nd claim covers the method of nipping or pinching the fabric to form ridges or creases, as stated in the first claim, by means of jaws composed of opposing surfaces opened and closed at intervals on one side of the cloth, to seize and pinch the fabric while at rest, and then release it as the same is moved along intermittently by a feeding mechanism which is suitable for the purpose, or such as is used in sewing-machines. The fifth claim covers the combination of creasing device or devices of a tuck-marker with a jointed lever for purposes set forth in the patent. The sixth claim covers a tuck-creasing mechanism having its upper and lower parts connected and together adjustable, as relatively to the needle of a sewing-machine, and operated by a sewing-machine.

In the eighth claim, the combination with a tuck-marker having the upper and under parts connected and together adjustable as specified, of the lever and spring, substantially as in said patent set forth.

2d X Q. Do you understand this patent as including only the particular mechanisms specified in the specifications of the patent, and shown by the drawings and model filed in the Patent-Office, or as including any and all forms of mechanisms by which the same results may be attained?

A. As I understand this patent it is not limited to the specific mechanism described in the specification and shown in the model and drawings referred to. But that it covers the idea of making a crease by jaws, or opposing surfaces acting as jaws, and for that purpose of placing them on one side of the cloth, and so arranging them as to open and close at intervals, and to seize and pinch the fabric when at rest, and then to release it while the feed operates, to move it along intermittently so as to form a crease parallel to the line or seam being
241 sewed for a previous tuck. My opinion is that it includes other mechanism than that described, as equivalents, when they perform the functions of making a crease substantially in the way described in the patent.

3d X Q. Have all your answers in reference to this patent, on your examination-in-chief, been predicated or based upon the opinion just expressed, as to what the patent covers and includes?

A. They are based upon the patent, which, in my opinion, justifies the answers given.

4th X Q. Have they been based upon the extent of what the patent includes, as asked in the former interrogatory?

A. Yes, substantially.

5th X Q. Do you not find in the Wheeler device No. 5, unity of adjustment of the markers?

A. Yes, in themselves; but not relatively with the needle of the sewing-machine, or on a sewing-machine.

6th X Q. Do you not find unity of adjustment of the markers relatively to the edge of the stitch, to the last line of seam, without regard to its being sewed by hand or by a sewing-machine?

A. I find unity of adjustment in No. 5, relatively to a gauge against which the edge of the fold, or of the tuck, is placed, which may be used for marking in place of a card and needle by hand, at which marks thus made a fold may be made by hand for a tuck, which may be sewed either by hand or by a sewing-machine afterwards.

7th X Q. Will you say, as an expert, that the Wheeler patented device has no adjustability in relation to the width of tuck to be made?

A. I will say, as an expert, that it has adjustability in relation to the amount of cloth which is required for a tuck and space, but I do not see that it is used or designed to be used to give the width of tuck alone. The width of tuck must be determined by a gauge, set at the required distance from the needle of the sewing-machine, or by measuring from the edge of the fold, if sewed by hand.

8th X Q. Has the device No. 5 adjustability of the markers together as a unity or not?

242 A. Yes; in themselves.

9th X Q. Is that adjustability in unity as a whole substantially the same as found in Nos. 2 X, 3, and 18?

A. As to the adjustability of the markers themselves, yes; but not in its relations to the sewing-machine needle.

10th X Q. Are you of opinion that, so far as the unity of adjustment together of markers is concerned, it makes any difference whether that adjustment has relation to the edge of the last line of seam sewed by hand, or to the needle in a sewing-machine, for a seam about to be sewed by it on the last line of tuck? If in your opinion there be a difference, state what makes it.

A. So far as unity of adjustment together of markers is concerned, in themselves alone, there is no difference.

11th X Q. Is there any substantial similarity between the devices Nos. 10 and 2 X, 3, and 18, in the mechanism of their respective parts, and as a whole?

A. There is no substantial similarity in form. There is a substantial similarity as a whole in the mode of operation.

Cross-examination closed on 2d case.

United States circuit court, northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* HERMAN B. GOODRICH. } Case No. 3.

Cross-examination of Daniel Barnum, by Walter B. Scates, solicitor for defendants.

1st X Q. In your answers to interrogatories-in-chief 1 and 2, you
243 state that Exhibits 13 and 14 are substantially similar to that set forth in your affidavit filed in this suit, and in answer to interrogatory 3 in chief, you state that the spur in 14 is equivalent to the sliding folder in 13, and in your answer to the fourth interrogatory-in-chief you state that the turned-under end of the lever-arm in 14 is equivalent to the hammer-shaped end of the lower end of the lever-arm in 13. State if you find any such parts in Exhibit No. 10.

A. No; not in form. I do not find the spur and sliding folder. I do not find the turned-under end or the hammer-shaped end of the lower end of the lever-arm in Exhibit No. 10.

2d X Q. Can you say that the several parts of Nos. 13 and 14, in their principles of construction, are substantially like the parts of No. 10?

A. They are not like No. 10 in their construction, but in their principles as to the mode of operation, they are.

3d X Q. What function in tucking is performed by the slide-finger in No. 13?

A. It performs the function of placing the cloth in a position so that the clamping jaws or surfaces may seize it, by placing it in a doubled position or form, a function which is rendered necessary in consequence of the jaws being changed from a vertical to a horizontal position. Beyond placing the cloth in that position, I see no function that it performs in tucking.

4th X Q. Is it not a new and useful element introduced in a tucking device?

A. So far as I know, it is new, and is necessarily introduced to enable the jaws to seize the cloth, under the change made in the position of the jaws; but it does not aid the jaws or opposing surfaces in pinching and marking a crease on the edge.

5th X Q. Do you now answer the balance of interrogatory 4 as to whether the sliding finger is useful or not, and without introducing into your answer anything about "jaws?"

244 A. In the relations in which it is used, and for the purpose of placing the cloth in a double or folded condition, it is useful.

6th X Q. Would tuck-marker No. 13 be a practical device for tuck-creasing without it?

A. No.

7th X Q. Could any parts of Exhibits 13 and 14 be substituted by any part of No. 10 so as to make a practical operative tuck-marker without reconstruction or invention?

A. Without change in form, I do not see that the identical parts, except a lever-arm, which would not have to be substituted, as it is already to be found in Nos. 13 and 14; so, also, are the opposing surfaces forming jaws; so, also, is a spring for raising the lever-arm, all of which are substantially equivalent to the same parts in No. 10.

8th X Q. The former question did not call for your opinion as to the parts of 13 and 14 being equivalent to the parts of No. 10, but whether any, and, if any, what, part or parts of Nos. 13 and 14 could be substituted to and for any part of No. 10; and, if yea, point out what part or parts could be so substituted.

A. If the counsel means by his question to ask the witness whether any individual part of No. 10 in form, shape, length, breadth, and mechanical connections is absolutely identical with the parts, or any part, of Exhibits 13 and 14, and whether they can be substituted piece by piece, I answer no.

Examination adjourned at 5 p. m. to Wednesday morning, September 3d, at 10 o'clock.

WEDNESDAY MORNING, *September* 3d.

Cross-examination resumed at 10 o'clock, pursuant to adjournment.

9th X Q. Could the serrated nippers, pincers, or jaws, with the spring-levers connected with and operating them, of No. 10, be substituted for the upper spring-arm and hammer-shaped marker at its

245 end, and the under marker attached to the bed-plate of the device with its co-operating slide-finger in No. 13? If yea, state how it could be done.

A. If the counsel means to ask the witness whether the individual parts, or either of them, could be thus substituted without reference to the size, shape, &c., &c., and precise mode of operation, I answer no.

10th X Q. Could a like substitution of said parts in No. 10 be made for like parts named in the last question of No. 14? If yea, state how it could be done.

A. To this question I make the same answer as to the last.

11th X Q. Could the serrated nippers in No. 10 be substituted as markers to Nos. 13 or 14, to operate either perpendicularly or horizontally, without reconstruction?

A. No.

12th X Q. Is serration essential in the nippers in No. 10, or would they operate practically if smooth?

A. They would operate practically without serration, shaped as they are; the edges being chisel-edged, the serrations are only essential so far as they tend to aid in gathering the cloth preparatory to pinching the edge to form a crease.

13th X Q. Is serration required in markers on Nos. 13 and 14?

A. No; for the reason that the markers or nippers in Nos. 13 and 14 are changed in position relatively to or with the cloth, it being left open and resting on the under opposing surface, so that the jaws in that position could not be brought in contact with the cloth as in No. 10.

14th X Q. Do you know of a tucker constructed like the particular mechanism in No. 10 ever having been put on the market or used, and, if so, did it practically crease? Would such a mechanism, constructed precisely like model No. 10, do practical work in creasing?

A. I don't know that a tucker precisely like No. 10 was ever put on the market.

I have no hesitation in saying, both as an expert and as a me-
246 chanic, that a tuck-creaser of the form of No. 10, in its several parts, can be made to do practical work in tucking.

15th X Q. In your opinion of the Rose patent, does it cover and include nipping or pinching, as a mode or process for tuck-creasing in connection with the sewing-machine by any and all forms of mechanical devices, however different from No. 10 in form and arrangements, and combination of parts, and as a whole; or does it so cover and include only the particular mechanism described in the specifications of said patent and shown by drawing and model 10?

A. In my opinion, the Rose patent does cover and include nipping or pinching surfaces for making a crease by pinching the cloth to form a crease on one side of the cloth, as a mode or process for tuck-creasing with a sewing-machine, when the pincers are operated by the means described, or by any other mechanism which will operate opposing surfaces to make a crease on one side of the cloth, by pinching the edge to form a crease in substantially the same way as in the Rose patent, when connected with and operated by a sewing-machine.

16th X Q. Have all your answers to questions of complainants on your examination-in-chief, in which you say you find a substantial identity between defendants' Goodrich's devices Nos. 13 and 14, and complainants' device No. 10, been based or predicated upon the opinion of the extent of the Rose patent expressed by you in your last answer?

A. No, sir; except so far as to forming the crease by pinching the edge of the cloth on one side to form a crease by opposing surfaces on and operated by a sewing-machine; but so far I based my opinion, as I still do, upon the facts which I find in Rose's patent, and for the reason that I consider Rose to be the first man who invented and patented a mechanism for thus making a crease on one side of the cloth by a pinching device, opened and closed at intervals in connection with, and operated by, a sewing-machine; said crease being parallel to the
line of seam of a previous tuck; and therefore that Rose is enti-
247 tled to, and has a patent for, his method, which covers equivalent devices for doing the same thing in substantially the same way.

17th X Q. Can you now say that the mechanical parts in form of Nos. 13 and 14 are substantially like the parts in No. 10, or are they simply equivalents in your opinion?

A. I have previously said they are not, as parts, in form like No. 10, and I say so still. But I do say that the opposing surfaces in 13 and 14, which form the pincers, are substantial equivalents for making the crease to those described in No. 10.

18th X Q. Does the Rose patent, in your opinion, cover and include unity of adjustment of the markers other than as connected with his particular mechanism?

A. In my opinion, Rose was the first man to make a tuck-creasing mechanism with upper and lower parts connected, and together adjustable as to its relations with the needle of a sewing-machine, and operated by a sewing-machine, and therefore that his patent covers such mechanism when connected and operated on a sewing-machine, irrespective of the particular mechanism for operating it; the markers being operated in substantially the same way.

19th X Q. Was Rose the first man who constructed a device for marking tucks with unity of adjustment of the markers without respect to the particular mode or manner for operating the device?

A. Rose was the first man who constructed a device for marking the width of a tuck, but not the first to make a marking device with upper and under part together adjustable with a gauge for marking the width of cloth by hand, embracing the width of both tuck and space, leaving the width of tuck to be determined for sewing it either on a machine or by hand.

20th X Q. Do you consider the upper spring-arm in either 13 or 14 as constructed substantially like the jointed lever in No. 10, under claim 5 of the Rose patent?

A. So far as they carry and operate the upper pinching device, and operated on a sewing-machine for the purposes described,
248 I do consider them substantially equivalent for the purposes of pinching the edge of the cloth.

Cross-examination closed on 3d case.

Redirect examination on the first case:

1st Q. Have you any interest in the letters-patent of June 5, 1860, granted Fuller and Goodell, and re-issued letters-patent, dated December 1st, 1868, granted to Henry W. Fuller, assignee of Israel M. Rose, or in the subject-matter of these suits?

A. No.

2d Q. Look at X question 23, and your answer thereto, and state why device No. 5 does not contain all the essential features of the other exhibits therein mentioned.

A. My reasons are that Exhibit No. 5 is not provided with any means for connection to a bed-plate or to any moving part of a sewing-machine, or for operating or vibrating it as a tuck-creaser.

3d Q. Look at X question 28, and your answer thereto, and state whether what you have therein referred to as a gauge, in the Wheeler device, constitutes such a gauge as that now used in connection with a tuck-creaser.

A. In view of its connection with No. 5, which is not a tuck-creaser, and with a view also that it cannot be used for gauging the width of a tuck, it is not such a gauge as that now used on a sewing-machine. I did not mean to be understood in that answer as saying that it was to be used for measuring the width of tucks, but that it was to be used for

marking cloth as a substitute for the card and needle, by hand, as was previously done.

4th Q. Look at letters patent granted to Calvin D. Wheeler, dated February 14th, 1860, and state whether you therein find any description of or intimation of the existence or use of any such recess or
249 under marker in the bed-plate of that device, as shown in model No. 5 of that patent.

A. I do not find described in the patent such a recess in the bed-plate as now exists in model No. 5, but the patent speaks of there being soft metal inserted in the bar C at *c* to prevent injury.

5th Q. Does not the language of the patent just quoted preclude the idea of a recess into which the point was to enter?

A. It does, both in the description and drawings.

6th Q. Look at X question 19, and your answer thereto, and state whether, in your opinion, any other means of adjustment of the upper marker other than the particular method employed by Fuller would not be an equivalent device.

A. Yes.

7th Q. Look at X question 35, and your answer thereto, and state whether, in your opinion, the utilization of the power of the needle-arm, or other moving part of the machine, forms any element of Fuller's invention.

A. Certainly not, for the reason that Fuller's invention includes certain essential mechanical parts which I have described; but those parts must be placed in such relations with the sewing-machine as to be operated by some motive power; in order to produce the result desired it is necessary, of course, that some power should be utilized to vibrate the upper marker, or else no indentation of the cloth could be obtained; and it is quite as necessary that the cloth should be fed by some feeding mechanism, or else no continuous crease would be obtained; and the needle-arm or other moving part of the machine sustains the same relation to the invention of Fuller as the feed. Fuller's invention or idea was to arrange proper mechanism, in such relations to both the needle-arm or other moving part, and feed, as would produce automatically a continuous crease in the cloth itself, parallel to the line of seam of a preceding tuck, at the same time such tuck was being sewed by a sewing-machine.

250 8th Q. Look at X questions 21 and 40, and your answers thereto, and state whether your answers therein referred to, are not also based upon similarity in parts, and in their mode of operation, as well as upon your opinion as to the scope of the patents.

A. Yes.

9th Q. Referring to your answer to redirect question 4, state what injury is prevented by the use of soft metal, against which the point in the Wheeler invention is to strike, as described in that patent.

A. Injury to the point itself. Provided some soft materials were not used, the point would, if used on hard metal, become blunted, so as not to mark the cloth.

10th Q. Had such a recess as appears in model 5 been provided by Wheeler, would there have been any occasion to provide soft metal to prevent such injury?

A. No.

Redirect examination, case 2.

1st Q. Look at X question 10, and your answer thereto, and state whether there is any such thing, properly, as a unity of adjustment, unless with reference to some co-operative or associated mechanism.

A. There is no such thing as unity of adjustment, except in relation to some mechanism or object that, for the purposes of adjustment, have a fixed relation relatively with the parts adjusted in unison when the adjustment is completed.

2d Q. Look at X question 11, and your answer thereto, and state whether you do not find in Exhibits 2 X, 3, and 18 a bed-plate and a vibrating upper part, and whether in those parts you do not find a similarity to model No. 10.

A. Yes.

3d Q. In your opinion, is the invention of Rose, as covered by the sixth claim of the re-issued patent, dependent upon the particular form or parts of a tuck-creaser, or is it applicable to any tuck-creasing mechanism having upper and under parts?

251 A. It is not dependent upon any particular forms or parts of a tuck-creasing mechanism, but is applicable to any tuck-creasing mechanism having upper and under parts connected, and together adjustable as to its relation to the needle of a sewing-machine and operated by a sewing-machine.

4th Q. Has the Wheeler invention any connection with the sewing-machine, or any relations, mechanical or otherwise, with the needle of the sewing-machine?

A. No, nor is it a tuck-creasing mechanism.

Examination adjourned until Thursday, 4th September, 1873, at 11 o'clock.

THURSDAY MORNING, *September 4th*—11 *o'clock.*

Met pursuant to adjournment.

Redirect examination in 3d case.

1st Q. Look at X-question 1, and your answer thereto, and state whether the hammer-shaped end and turned-under end of the lever-arm in Exhibits 13 and 14, so far as they constitute movable opposing surfaces, are not corresponding parts to the outer jaw of the Rose invention.

A. For pinching cloth on the edge of a fold, forming a crease, yes.

DANIEL BARNUM.

Redirect examination closed.

Adjourned to Friday morning, Sept. 5, at 11 o'clock.

252 Circuit court for the northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } 2d case.

The complainants in this case called as a witness in their behalf ISRAEL M. ROSE, who, being duly sworn on their behalf, testified as follows:

1st Q. Look at the certified copy re-issued letters-patent, dated December 1st, 1868, granted to Henry W. Fuller, assignee by mesne assignments to Israel M. Rose, and state whether you are the inventor therein named, and whether you believe yourself to be the original and fir t inventor of the improvements therein described.

(Objected to as incompetent and irrelevant.)

A. I am the inventor therein described. I believe myself to be the first and original inventor of the improvement therein described.

2d Q. What was the date of that invention?

(Objected to as incompetent and irrelevant.)

A. During the spring of 1863, to the best of my recollection. The invention was not all made at one time, as I was regularly employed at that time on other work. The various features of my invention were made at different times extending over a period of perhaps two months.

253 3d Q. State, as near as you can, what was the first feature invented, and at what time the invention was made.

(Objected to, same reason.)

A. I could perhaps best answer that by relating the circumstances in detail.

At the time tuckers were first shown to me I was employed by James Wilcox, as a mechanic. Mr. Henry W. Fuller, I believe is his name, brought in a tuck-marker, desiring that it should be adapted to the Willcox & Gibb sewing-machine. It was brought to me by Mr. Hatch, the managing man there, and Mr. Fuller—Mr. Hatch instructing me to see what I could do with it; he informed me that it was not pressing, but that I might attend to it from time to time as I had leisure. I did not apply the Fuller tucker to the sewing-machine, but experimented immediately on adapting an adjustable device which should attach to the bed-plate of the machine. I used for that purpose an ordinary sewing-machine guide of the Willcox & Gibb sewing-machine, to which I attached a spring-arm that should extend between the needle and presser-bar of the machine and under the needle-bar, that its detached end would extend out and in front of the needle; to this detached end of the spring-lever I attached a shoe with a groove running lengthways of this shoe in its lower surface. I then constructed a piece of sheet steel, by bending, that it might slip onto the front edge of the Willcox & Gibb sewing-machine. I then turned up the edge of this piece of steel so as to form a knife-blade. I then adjusted this guide with this arm attached, as described, to the bed-plate of the machine, by means of the machine guide-screw, so that the groove in the shoe described should stand directly over this knife-edge described; the whole being so adjusted that the action of the needle-bar in its descent should strike upon this arm described, and bring this groove directly down upon this knife-edge described. I then tried a piece of goods on it, and discovered that it would crease the goods, but the action of the sewing-machine
254 when in motion, and the action of this grooved piece for creasing as described, would displace this knife-edge that was placed on the edge of the machine. I then constructed from a piece of sheet metal, in the form of a letter L, as it were, and attached one end of this letter L, as it were, to the same guide to which was already attached this arm before mentioned, that the other detached end of this letter L should extend in front of the needle and directly under this grooved shoe, with the edge of the L turned up, would be substantially the same as before, except that the parts would sustain fixed relations to each other.

I have, and produce an experimental model made by me, which illustrates what I have above satted. The spring-arm and shoe are the identical parts that I experimented with; and the other parts are identically similar. That feature, to the best of my recollection, was made in the early part of March, 1863.

(Complainants offered in evidence the model and shoe produced and described by witness, marked "Exhibit O.")

4th Q. State when the other features of your invention were invented, and how you fix the time.

(Objected to for same reasons.)

A. As I stated before, my experiments extended over considerable time; it may have been a month or more.

I had that tucker tested by the lady operator employed in the store, a Mrs. Dickenson. I next attached a plain piece, like that of the Exhibit O, in place of the grooved shoe, for the purpose of making a break in the goods, by pressing the fabric between the plain piece and the knife. After that I constructed a pair of jaws and attached them to a piece of wire, which, as an experiment, I attached to the presser-bar of the sewing-machine; next, to the best of my recollection, I constructed two small rollers, which were held together by a semicircular spring; they were so arranged that their peripheries were held together by means of this semicircular spring; the whole being attached to
255 an arm, in place of the shoe described, so that the rollers would occupy the same position to the edge that the shoe did. After once attaching all the parts together, I retained that feature all the way through my experiments. I discovered that the rollers, acting in place of the shoe in yielding to the presser upon the knife for the purpose of creasing the goods, would retain hold of the goods and displace them, (the goods,) which suggested the idea represented in the model, No. 10, sent to the Patent-Office, viz: constructing a pair of jaws that, by the downward movement of the needle-bar of the sewing-machine, *that* they should be brought in contact with the fabric and acted on so as to pinch the fabric between these jaws, and at the upward movement of the needle-bar they should release their hold on the goods.

(All the foregoing questions and answers objected to for incompetency, impertinency, and irrelevancy.)

Direct examination closed.

Defendants' counsel states he has no questions to put to the witness.

And defendants' counsel objects to the above note being added to the deposition, the same being done by order of the complainants' counsel.

I. M. ROSE.

256 Circuit court of the northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
ENOCH S. YENTZER AND WALTER SCATES. } Case No. 1.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
ENOCH S. YENTZER AND WALTER SCATES. } Case No. 2.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
HERMAN B. GOODRICH. } Case No. 3.

To save time and prevent swelling the record, the complainants offer in evidence the first six pages of their printed history in pamphlets,
257 in lieu of oral testimony by witnesses, to prove the statements therein made, and to be considered as evidence by witnesses to the truth of the said statements for the purposes of this trial.

Thereupon the defendants stipulate that for the purpose the said six pages of history may be considered as having been sworn to by witnesses as true, and as offered in evidence as proof of the statements therein made, but object to the admission of the said six pages of history, on the ground that the statements therein contained are incompetent, impertinent, and irrelevant as evidence to the issue in these cases, as evidence, and waive all other objections.

It is further stipulated by all the parties in these cases that the models and exhibits offered in evidence by complainants and defendants are as stated on the tags attached thereto, respectively, and that the statements made on said tags are true for the purpose of this trial, and that all the patents, with their specifications and drawings respectively referred to in the evidence taken in these cases, shall be considered as in evidence.

FRIDAY MORNING, *September 5th*, 1873.

Examination resumed, pursuant to adjournment, at 11 o'clock.

Circuit court of the northern district of Illinois.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } Case No. 1.

258 HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } Case No. 2.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* HERMAN B. GOODRICH. } Case No. 3.

The complainants in the first-named case called Earle H. Smith as a witness in their behalf, and offered as a part of his examination-in-chief his affidavit filed in said case May 27, 1872. And the said Earle H. Smith, being duly sworn in said case, testified as follows:

CITY AND COUNTY AND STATE OF NEW YORK, *ss:*

EARLE H. SMITH, being duly sworn, says that he resides at Jersey City, New Jersey; that he is a solicitor of patents and practical mechanic, and has been for many years; that he is, and has been for many years, thoroughly acquainted with sewing-machines, their mechanism and attachments, and has been frequently examined as a mechanical expert in patent cases, and has invented several improvements in sewing-machines, some of which are now in general use.

And deponent further says that he has examined and is per-
259 fectly familiar with letters-patent of the United States granted to the complainant and one Anthony W. Goodell June 5, 1860, and numbered 28633, for an improvement in mechanism for marking cloth in sewing-machines. That the said improvement so secured by said letters-patent consists primarily in forming creases in cloth by means of markers, consisting of a notch and point so arranged that when the cloth is placed in position for operation the notch and point shall be found on opposite sides thereof, the notch being below and the point

above, or vice versa. Whichever may be placed above is then vibrated in unison with the needle and driven down upon the other, by which means the point carrying the cloth with it is forced into the notch, thereby making a mark, which operation being repeated as the cloth is fed to the needle, produces a crease parallel to the line of seam, to be afterwards folded down to be sewed into a tuck.

And deponent further says that he has examined a tucking device stamped "Pat. Oct. 26, 1869, April 11, 1871," contained in a box with a printed label as follows: "E. S. Yentzer & Co., proprietors of Yentzer's foot-tucker, feller, adjustable hemmer, and edge-stitcher, Chicago, Illinois," and is familiar therewith.

That said last-mentioned device is provided with a notch and point, so arranged as to have the point on the upper side of the cloth and vibrated by the needle-bar, and the notch on the under side of the cloth, and, when in operation, resting upon and supported by the bed of the machine; the whole being so arranged that the point is vibrated in unison with the needle and driven down into the notch, carrying the cloth with it, thereby making a well-defined crease parallel to the line of seam for tucking purposes, the said last-mentioned device being in its parts, mode of operation, and result substantially like the invention of the complainant.

The complainant's invention was in three parts, the lower of which was fastened to the bed-plate of the machine, the part carrying the upper marker fastened to the presser-foot, and the bar driving the latter to the needle-bar.

260 In the Yentzer device the parts have been connected together and the whole attached to the machine at the presser-foot, but in operation with the upper and lower parts sustaining the same relations and with the like connections as in the invention of the complainant. This difference, however, is immaterial, (the complainant in his specification attached to his said letters-patent expressly stating that the method of attachment of the parts must be varied as circumstances may require,) the Yentzer device presenting only a difference in arrangement, not in substance, the fact being that the lower part of the device is in precisely the same connection with the bed of the machine in both devices when in operation, and the difference one of attachment merely.

And deponent further says that he has read the instructions accompanying the Yentzer device, wherein the point is denominated a pricker, but deponent says that it is in no sense a pricker or perforator, the blunt, conical form making it practically impossible to perforate the material, especially through two thicknesses, as directed; and that if it were possible to perforate, the large holes which would be made would destroy the fabric, the fact being that a crease must necessarily be made, with or without a perforation, by the forcing of the material by such a point into the orifice provided, which, in its construction, presents a notch, one side of which is straight and the other diagonal, against both of which the cloth is jammed by the point, the crease being mainly formed by the contact of the point with the diagonal side, which is the precise arrangement of the complainant.

And deponent further says that the said Yentzer device and the invention of the complainant are substantially alike in construction, mode of operation, and in the result obtained.

EARLE H. SMITH.

Sworn to before me this 7th day of May, 1872.

[L. S.] E. B. BARNUM,
Notary Public. N. Y. C.

261 1st Q. Have you examined the questions and answers Nos. 2 to 25 of the direct examination of Daniel Barnum, and the models, patents, and exhibits therein referred to? and, if yea, state whether the facts therein stated by said Barnum are true, and whether, in your judgment, the opinions by him therein expressed are sound, correct, and true in every particular; and if you differ from him, state wherein.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

The complainants in the second-named case called Earle H. Smith as a witness in their behalf, and offered, as a part of his examination-in-chief, his affidavit filed in said case May 27, 1872. And the said Earle H. Smith, being duly sworn in said case, testified as follows:

CITY, COUNTY, AND STATE OF NEW YORK, *ss:*

EARLE H. SMITH, being duly sworn, says that he resides at Jersey City, New Jersey; that he is a solicitor of patents and practical mechanic, and has been for many years.

That he has also for many years been thoroughly acquainted with sewing-machines, their mechanism and attachments, and has invented several improvements in sewing-machines, some of which are now in general use, and that he has been frequently examined as an expert in patent cases.

And deponent further says that he has examined and is perfectly familiar with re-issued letters-patent No. 3218, granted to the complainant, assignee by mesne assignments of Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines. That said improvement consists, among other things, in the connection or combination of the upper and lower parts of a tuck-creasing mechanism,
262 so that its parts are together adjustable in their relation with reference to the needle of a sewing-machine.

Prior to the invention of Rose, tuck-creasing attachments had been made in several parts, requiring as many places of attachment as there were parts, and also that each part should be separately adjusted with reference to each other, and especially with reference to the needle, a result which increased in difficulty as the parts were multiplied.

The adjustment of the upper and lower parts of the creasing instruments was necessarily nice, and a failure in adjustment necessarily resulted in the failure of the work.

By the invention of Rose these difficulties were obviated, and a tuck-creasing mechanism having its parts so connected that the relative position of the parts was always maintained, and that one adjustment served for all the creasing parts, was produced.

This feature is now embodied in all the tuck-creasers now on the market, and is essential to a perfect-working tuck-creaser.

The said invention also comprised the use of a spring to lift the upper part of the creasing device from the cloth while the feed of the sewing-machine was in operation.

And deponent further says that he has examined a tuck-creasing device stamped "Pat. Oct. 26, 1869, April 11, 1871," made by the defendants, and is thoroughly acquainted therewith.

That in said last-mentioned device he finds a tuck-creasing mechanism having its upper and lower parts so connected that they are together adjustable with reference to the needle of a sewing-machine when in operation, and they require but one attachment to the sewing-machine.

The spring to carry or lift the upper part of the creasing device from the cloth while the feed of the sewing-machine was in operation.

That in these two features the device of the defendant is pre-
263 cisely identical, in construction, mode of operation, principle, and result, with the invention of said Rose secured by said re-issued letters-patent.

EARLE H. SMITH.

Sworn to before me this 8th day of May, 1872.

E. B. BARNUM,
Notary Public, N. Y. C.

1st Q. Have you examined the questions and answers Nos. 1 to 6 of the direct examination of Daniel Barnum, and the models, patents, and exhibits therein referred to? and, if yea, state whether the facts therein stated by said Barnum are true, and whether, in your judgment, the opinions by him therein expressed are sound, correct, and true in every particular; and if you differ from him, state wherein.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

The complainants in the third-named case called Earle H. Smith as a witness in their behalf, and offered as a part of his examination-in-chief, his affidavit filed in said case May 27th, 1872. And the said Earle H. Smith, being duly sworn in said case, testified as follows:

CITY, COUNTY, AND STATE OF NEW YORK, *ss:*

EARLE H. SMITH, being duly sworn, says that he resides at Jersey City, New Jersey; that he is a solicitor of patents and practical mechanic, and has been for many years.

That he has also been for many years thoroughly acquainted with sewing-machines, their mechanism and attachments, and has in-
264 vented several improvements in sewing-machines, some of which are now in general use, and that he has been frequently examined as an expert in patent-cases.

And deponent further says that he has examined and is perfectly familiar with re-issued letters-patent No. 3218, granted to the complainant's assignee, by mesne assignment of Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines.

That said improvement consists of a device for pinching or nipping the cloth, provided with a pair of jaws, one of which is practically stationary while the other is forced up to and against the first, pinching the cloth between them. In the complainant's improvement they are arranged in a vertical position with reference to the cloth, and the outside jaw performs the office of seizing the cloth and forcing it between the pinching surfaces. The device is so arranged that the operation of pinching is performed while the needle is in the cloth and while the feed is at rest, and that the cloth is released by the opening of the jaws before the feed acts. This operation, continued, results in a well-defined crease, parallel to the line of seam, and ready to make a fold to be sewed into a tuck.

That said improvement consists also in the method of nipping or pinching the fabric being sewed, to form creases or ridges thereon, by means of jaws opened and closed at intervals, to seize and pinch the fabric

when at rest, and then release it as the same is moved along intermittently by a suitable feeding mechanism.

The said improvement consists also in certain details of construction, arrangement, and combination of mechanism for operating creasing devices, and, among others—

1st. The use of a spring for lifting the upper part of the creasing device from the cloth and allowing the jaws to open.

2d. The combination of a jointed lever, to which is attached one of the pinching surfaces, with a creasing device.

3d. The connection of the upper and lower parts of a tuck-creasing mechanism, making practically a tuck-creasing mechanism with
265 all its parts connected and together adjustable as to its relation with the needle, by which very valuable results are obtained; but one attachment to the sewing-machine being necessary, and the parts bearing always the same relation to each other and to the needle, the necessity of different adjustments of the different parts is entirely obviated; tuck-creasing device having previously been made in several parts, requiring multiplied attachments and adjustments.

4th. The combination of all the previous features in one mechanism.

And deponent further says he has examined a tuck-creasing device, stamped "H. B. Goodrich, Chicago, Ill., pat. Jan. 2, 1872," made by the defendant, and is thoroughly familiar therewith.

That in said last-mentioned device he finds—

1st. The pinching-jaws or surfaces arranged in a horizontal instead of a vertical position with respect to the cloth, with the addition of a folding-finger, which, as the upper jaw approaches the lower, forces the cloth between the pinching surfaces.

That by the arrangement of the jaws in a horizontal position the inside jaw rests flat upon the bed-plate, while the outside jaw is attached to the jointed lever, as in the improvement of complainant.

In operation, as the needle descends, the jointed lever is carried with it, as in complainant's improvement, and the cloth, having been forced into position by a folding-finger, is seized between the upper and under creasing surfaces, and pinched while the needle is in the cloth and the feed at rest, which operation, continued as the cloth is fed intermittently by a feeding mechanism, results in a ridge or crease parallel to the line of seam. And deponent further says that the only difference between the complainant's improvement and the defendant's creasing device is that the defendant has simply laid the complainant's jaws down on their sides, and makes the pinch horizontal instead of vertically, by which change it becomes necessary to complicate the tuck-creaser by the addition of an extra device to bring the cloth be-
266 tween the jaws, an operation not required by complainant's improvement, because the jaws in the latter perform the double duty of picking up the cloth as well as the pinching, and that, in deponent's opinion, the defendant's device is a very palpable attempt to evade the complainant's improvement, without any substantial change.

And deponent further says that he finds in the defendant's device—

2d. A coil spring arranged to carry the upper part of the creasing device up from the cloth, and to allow the jaws to open, instead of the flat spring of the complainant's, and that the one is a mechanical equivalent for the other.

3d. That there is a jointed lever, to which is attached one of the pinching surfaces, in combination with a creasing device, precisely as in the complainant's improvement.

4th. That the upper and lower parts of the defendant's device are connected together, and has all its parts connected and adjustable together with reference to the needle; and,

5th. That there is the combination of all the previous features in one mechanism.

And deponent further says that, in the features enumerated, there is no substantial difference between the improvement of the complainant and the device of the defendant, but that, on the contrary, the two devices, in construction, mode of operation, principle, and result, are substantially identical.

EARLE H. SMITH.

Sworn to before me this 8th day of June, 1872.

E. B. BARNUM,
Notary Public, N. Y. C.

267 Q. Have you examined the questions and answers Nos. 1 to 15 of the direct examination of Daniel Barnum, and the models, patent, and exhibits therein referred to? And if yea, state whether the facts therein stated by said Barnum are true, and whether, in your judgment, the opinions by him therein expressed are sound, correct, and true in every particular; and if you differ from him, state wherein.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

Cross-examination of EARLE H. SMITH in the first case, by Walter B. Scates, counsel for defendant:

1st X Q. Examine the X-questions, and answers thereto, of Daniel Barnum in case No. 1, numbered 3 to 40, inclusive, and the patents, models, and exhibits therein referred to, and state if you concur in the statement of facts and in the opinions and judgments expressed by Mr. Barnum in said answers; if not, state particularly and fully your own on all matters in which you differ with him.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

Cross-examination of EARLE H. SMITH in the second case, by Walter B. Scates, counsel for defendant:

1st X Q. Examine the X-questions, and answers thereto, of Daniel Barnum in case No. 2, marked 1 to 11, inclusive, and the patents, models, and exhibits therein referred to, and state if you concur in the statement of facts and in the opinions and judgments expressed by
268 Mr. Barnum in his said answers; if not, state particularly and fully your own on all matters in which you differ from him.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

Cross-examination of EARLE H. SMITH in the third case, by Walter B. Scates, counsel for defendant:

1st X Q. Examine the X-questions, and answers thereto, of Daniel

Barnum in case No. 3, numbered from 1 to 20, inclusive, and the patents, models, and exhibits therein referred to, and state if you concur in the statement of facts and in the opinions and judgment expressed by Mr. Barnum in his said answers; if not, state particularly and fully your own on all matters in which you differ from him.

A. I have examined the questions and answers referred to, and as to the facts therein stated by said Barnum, they are true, and as to the opinions expressed by him therein, in my judgment they are sound, correct, and true.

2d X Q. State if you acted as patent solicitor for the complainant Fuller in the matter of surrendering the original Rose patent, and in the preparation of new and additional specifications and claims for and in the re-issued patent of December 1st, 1868.

A. I acted as solicitor of patents in that case.

3d X Q. Look at copies of the Patent-Office letters on that application, dated October 12, 1868, October 16, 1868, and October 27, 1868, now shown you, marked "Exhibits Nos. 19, 20, and 21," by the notary in this case, and attached by him to your deposition in this case, and state if, in your opinion as an expert, the first and second claims of said re-issued patent cover and include a method of forming ridges or creases in cloth, by nipping or pinching the fabrics between opposing
269 surfaces, without regard to the substantial identity of the principle of construction in the form and arrangements of the parts of the mechanism by which the method is applied upon a sewing-machine for that purpose; or do those claims simply secure, cover, and include such a method in connection with the particular mechanism described and shown in the specification, drawings, and model No. 10, in evidence in this case?

A. The first claim referred to in the letters above mentioned in the question is not the claim found in the patent as issued. The second claim is not referred to in those letters.

The second claim of the Rose re-issued patent does cover the method of nipping or pinching the fabric to form ridges or creases thereon, by means of opposing surfaces on and operated by a sewing-machine, without reference to the special means of operating them by means of the sewing-machine, provided the operation of those surfaces is to form the crease by pinching the edge of the cloth on one side thereof in substantially the manner described in the patent. Rose being the first man, as I understand it, who invented and patented a mechanism for making a crease on one side of the cloth by a pinching device opened and closed at intervals in connection with and operated by a sewing-machine, for the purposes of tuck-creasing, he is, therefore, entitled to and has a patent for the method, as set forth in the second claim of his re-issued patent, which claim would cover equivalent devices for doing the same thing in substantially the same way.

4th X Q. Do you wish to be understoood by your last answer that a method is patentable, and that the re-issued Rose patent of December 1st, 1868, secures, covers, and includes a method independent of the particular mechanism described in said specifications, drawings, and model No. 10?

A. In my opinion, as an expert, method in connection with invention, and as used in that connection, is patentable. I do understand
270 the Rose re-issued patent as covering any mechanism that is substantially the same in its construction, operation, and in the result produced.

5th X Q. Will any mechanism, however different in form of its parts

and their combination and arrangement as a whole, be deemed by you as equivalent, and therefore covered by and included in the re-issued Rose patent, if in its results it forms a crease in the fabric by opposing surfaces operated by a sewing-machine?

A. Well, I should think not.

6th X Q. Have your opinions, given in answer to the direct and cross interrogatories, cases Nos. 2 and 3, in which you find substantial identity between the Goodrich devices Nos. 13 and 14 and the device No. 10, been based upon a substantial similarity of the mechanism, in the several parts and as a whole, of Exhibits Nos. 13 and 14, to No. 10, or have they been based upon what you deem equivalents in the results attained and in the mode of attaining them?

A. I base my opinions, as heretofore expressed, not so much upon a similarity of mechanism in the several parts and as a whole of Exhibits 13 and 14 to No. 10 as upon the fact that, as I understand Exhibits 13 and 14, their operation and result for creasing cloth in the sewing-machine is substantially identical in all said models.

7th X Q. Are the like opinions expressed in answers to interrogatories-in-chief and X-interrogatories, in which you find a like substantial identity or similarity of Exhibits 2 X, 3, and 18, with specifications, drawings, and model No. 10, under the sixth claim of the re-issued Rose patent, based upon similarity substantially of the adjustability of the former to the latter, or upon the adjustability of the former as equivalent merely to the latter?

A. Both.

Redirect examination of Earle H. Smith in the first case:

1st Q. Examine questions put to Daniel Barnum on his redirect
271 examination in this case, Nos. 1 to 10, and the answers thereto, the patents, models, and exhibits therein referred to, and state whether the statements of facts therein contained are true, and whether, in your judgment, the opinions expressed by him therein are sound, correct, and true.

A. They are.

Redirect examination of Earle H. Smith in case No. 2:

1st Q. Examine questions put to Daniel Barnum on his redirect examination in this case, Nos. 1 to 4, and his answers thereto, the patents, models, and exhibits therein referred to, and state whether the statements of facts therein contained are true, and whether, in your judgment, the opinions expressed by him therein are sound, correct, and true.

A. They are.

Redirect examination of Earle H. Smith in the third case:

1st Q. Examine the question put to Daniel Barnum on his redirect examination in this case, and the answer thereto, the patents, models, and exhibits therein referred to, and state whether the statement' of facts therein contained are true, and whether, in your judgment, the opinions expressed by him therein are sound, correct, and true.

A. They are.

EARLE H. SMITH.

Examination closed.

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273 DEFENDANTS' TESTIMONY.

United States district court, northern district of Illinois.

UNITED STATES OF AMERICA,
Northern District of Illinois, ss:

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } In chancery, for infringement of patent. Case No. 1.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } In chancery, for infringement of patent. Case No. 2.

HENRY W. FULLER AND ISAAC W. BARNUM *vs.* HERMAN B. GOODRICH. } In chancery, for infringement of patent. Case No. 3.

Depositions taken (pursuant to the order of the court, that the
274 testimony in the cause be taken orally before one of the masters, examiners, or commissioners of the court) in behalf of the defendants, before Simeon W. King, one of the commissioners of said court, at the district-court room of said district, at Chicago, commencing July 8th, A. D. 1873.

Present for the complainants, C. C. Bonney and E. B. Barnum, and for the defendants, Walter B. Scates and Henry C. Whitney.

The defendants in the first-named case first called George L. Chapin as a witness in their behalf, and offered, as a part of his examination-in-chief, his affidavit filed in said case September 2d, A. D. 1872.

The defendants in the second above-named case offered the affidavit of said George L. Chapin, filed September 2d, A. D. 1872, in this cause, as the commencement of his examination-in-chief in said cause.

The defendant in the third above-named case offered the affidavit of George L. Chapin, filed in this cause on the second of September, A. D. 1872, as the commencement of his examination-in-chief therein.

GEORGE L. CHAPIN, being duly sworn in the foregoing cases in behalf of defendant, testified as follows:

(Continuation of the direct examination of George L. Chapin, by the defendants, in case No. 1. Mr. Scates:)

Q. 1. State, Mr. Chapin, if you are the same person who testified in the affidavit referred to as filed September 2d, 1872.

A. I am.

Q. 2. I would ask you to proceed and state what similarity or difference, if any, in the principles of construction and mode of operation and results, you find between the Fuller patent, referred to in your examination, and the Yentzer patent, as shown by the patents themselves, the drawings and specifications thereto annexed, and models respectively, all of which are now shown you.

A. In the Fuller patent are shown two distinctive devices for
275 so operating upon cloth as to leave a mark or crease upon which the cloth may be folded. One of these devices is a very common one. It consists of a pencil, or other similar marking material, which,

when moved on the cloth, or when the cloth is moved under it, leaves a coloring substance on the cloth as a guide for folding the cloth. No such device is found in the Yentzer patent, nor any equivalent device therefor which operates on the same principle, or can be made to operate on the same principle. Further than this, there are no means, nor no mechanism, in the Yentzer patent whereby such a pencil or pigment can be attached or made to operate to mark the cloth in any manner so that the latter could be evenly folded. This pencil is fastened to a bar, which projects out from the needle-arm in nearly a horizontal direction, and it is an entirely useless piece of mechanism and an idle one when other mechanism, which I shall hereafter describe, is in use. Projecting outward from the presser-foot, and fastened to it, is a substantial bridge or frame-piece, which supports a bar running parallel with the bed of the machine, and nearly parallel with the needle-arm. This bar, which is elevated, supports one or more spring-arms which are provided with two slides or markers, one being a point operating in an elastic bed fastened to the plate of the marker, and the other being a point or sharp mechanism fastened to the bed-plate and operating in an elastic bed or bearing substance, which is attached to one of the aforesaid spring-arms. The bar which supports the pencil and is attached to the needle-arm, in its downward movement, comes in contact with the spring-arms, and causes the points above mentioned to mark the cloth. The distinct features of this invention consist in the elevated bar projecting out from the frame (attached to the presser-foot) the spring-arms, the bar projecting out from the needle-arm with the points, and the bed-plate on which they strike. In the Yentzer patent there is no frame-work projected out from the presser-foot, nor any horizontal bar projecting out from the frame-work; neither are there any spring-arms attached to any hor-
276 izontal bar; neither is there any horizontal bar projecting out from the needle-arm to operate said arms, but instead thereof there is a pivoted double spring blade operating on both sides of an upwardly-projecting point. The means for operating this blade consist of a spring-arm attached to the bed-plate of the marker, and made to extend over the double blade. Vertically through this spring-arm is a slot through which the needle passes and allows the lower end of the needle-arm to force the spring down on to the double blade, and consequently the cloth, passing under the blade and over the sharp point, necessarily has a portion of its elasticity destroyed, so that it will readily bend to form a tuck at such place marked. The spring-arm in the Yentzer patent is not attached to the double blade or marker as in the Fuller patent, and the double blade is not attached to any horizontal bar projecting out from the presser-foot, and in this regard, and for other reasons above enumerated, I find the mechanism in the Yentzer patent, No. 127287, of May 28th, 1872, to be different in the mode of construction, and operating on a different principle from the Fuller patent, No. 28633, June 5th, 1860. In short, the only feature of similarity absolutely is the fact that they would perhaps perform the same function—how perfectly could only be ascertained by practical test.

The examination was here adjourned till 10 o'clock a. m. July 9, 1873.

The examination was resumed this 9th day of July, 1873, pursuant to foregoing adjournment.

A. I may add that a bar projecting out from the frame (attached to the presser-foot) or bar projecting longitudinally out from the needle-arm, spring marker-arms, and the bed-plate with the marking-points, are all absolutely necessary to perform the function of tuck-marking cloth

and if any one of them be omitted from the device, the latter will be wholly inoperative, except, perhaps, one marker might answer the purpose instead of the two as shown in the Fuller patent referred to. I will further state that not one of these enumerated parts in the Fuller
277 patent could be substituted by any one of the parts in the said Yentzer patent without invention or reconstruction, and that none of the mechanism in the Yentzer patented device can be made to perform any functions in the Fuller patent without also reconstruction or invention. I find an additional device in the Yentzer patent consisting of a slide-guide, the function of which appears to be to regulate the width of the tuck, the scales being marked on the bed-plate to be used as a guide for this purpose. In the Fuller patent there is no such slide-guide on the bed-plate, but instead thereof the spring-arms can be adjusted on the bar projecting out from the frame-work or bridge attached to the presser-foot. When the slide-guide in the Yentzer patent is moved, the needle-arm still continues to strike the spring-lever or spring-arm on the same place, but when the spring-arms in the Fuller patent are moved on the bar projecting out from the frame attached to the presser-foot, the bar projecting out from the needle-arm necessarily strikes the said spring-arm at another point on the bar, thereby clearly showing that the two devices operate on distinct principles, inasmuch as they are severally clothed with different mechanisms.

The marking-point in the Fuller patent is adjustable in a slot in a bed-plate, so that it may be moved longitudinally to correspond with the notches or bearings in the end of the spring-arms when the latter is adjusted. In this device or Fuller patent, one marking-point projects up from the bed-plate, and the other marking-point down from one of the spring-arms; consequently, the point in the bed-plate operates in a bearing or notch in the end of one of the spring-arms, the other spring-arm having a point operating in a bed in said slot in the bed-plate, which shows that either spring-arm, with its respective marker, may perform the same functions, substantially, as the other spring-arm. The difference, therefore, in this regard, between the Fuller patent and the Yentzer patent is that in the Fuller patent the point or bar for marking must necessarily be adjusted in the bed-plate to a distance corresponding to the movement of the spring-arms. In the Yentzer patent the
278 marking-point is stationary, and in this regard entirely different as regards the necessity of an adjustment. In the Fuller patent there is a curved presser-plate or movable plate attached to a horizontal arm or frame-piece which is fastened to the presser-foot, the function of which plate is the holding of a cloth flat on the bed-plate as it passes through the machine or marker. One end of said movable plate is elevated very considerably above the bed of the machine, while the other end is curved around somewhat semicircular, and brought down to or nearly to the bed-plate of the marker, and operates independently of any other mechanism; it being an independent fixture in the Fuller patent. The bar which holds the cloth to the bed-plate in the Yentzer patent is attached to one end of the latter and extends lengthwise of it, and is rigidly fastened to the marking-blade, forming a different combination from the curved blade in the Fuller patent, inasmuch as at such times as the spring-arm is brought down on the blade the bar which holds the cloth to the bed-plate is made to bear harder thereon than when the needle-arm is ascending. If this bar, which holds the cloth to the bed-plate, were detached from the latter, no marking could be done, while, if the smooth plate be detached from the Fuller device, the marker will perform the same movement as though the plate were attached.

Q. 3. Now state the similarity or difference, if any, in the adjustability of the marking device in the respective patents, Fuller's and Yentzer's.

A. In the aforesaid Yentzer patent the marking device (proper) has no adjustment at all, it being a fixture relative to itself, that is, the point and the double spring blade. They are never moved to or from each other. But to make the adjustment, or get the width of the tuck, the bed-plate of the marker is moved longitudinally in a plate attached to the presser-foot, a second adjustment being made as above referred to by a guide-plate, which also runs in the frame attached to said presser-foot; or, to make it appear plainer, the bed-plate is constructed
279 in two parts; one part is attached to the presser-foot, and the other part carrying a spring-arm supporting the point and presser-bar to which the double plate is attached, slides in the plate as mentioned, whereby any desired adjustment is made without changing the relative positions of the point and double plate. In this regard there is a single adjustment to secure the proper width of tuck by changing the position of the two-part bed-plate. In the marker shown in the Fuller patent there are no such means provided for the adjustment. If the bed-plate be moved on a machine, the point or bearings for the point necessarily have to be moved in the slot in the bed-plate of the marker. This is also the case when the spring-arms are moved on the bar projecting out from the frame on the presser-foot, whereby, in the Fuller patent, there is a compound adjustment, while, in the Yentzer, there is a simple one, the difference being wide and marked, inasmuch as great care on the part of the operator must necessarily be required to make an adjustment in the Fuller patent so as to bring the points properly over notches or bearings.

Such care is not at all required in the Yentzer patent, inasmuch as the marker proper never has its point changed relative to the plate. There is, therefore, a new principle involved in the Yentzer patent, not shown, nor in anywise anticipated, in the Fuller patent. The means for adjustment in one patent would be wholly useless and inoperative in the other patent in providing any kind of an operative adjustment to secure the proper width of tuck to be formed.

Q. 4. State the similarity and difference, if any, in the mode or manner of attachment of these respective devices, the Fuller and Yentzer, to a sewing-machine.

A. The Fuller device is a compound attachment, and the bed-plate thereof is a distinct and separate device, and has no mechanical connection with the other part, except the supporting of a marking point, or notch, as the case may be, and supporting what appears to be an extension-plate for supporting cloths running on the presser-plate.
280 This bed-plate is adjustable independently of the spring-arms above, and when it is moved the points or notches in it have to be moved back, and correspond to the spring-arms above, thereby requiring two adjustments to secure the proper width of tuck or attachment of the upper parts, such as horizontal rods, spring-arm, and curved presser-plate, which have all been described.

In the Yentzer, one part of the two-part bed-plate is attached directly by means of a slot to the stock-arm, instead of to the frame-work projecting out from the presser-foot.

In this examination I have taken a model, X, engraved by me, to be a correct representation of the device described in Yentzer's patent.

I will, however, say that the marking device proper in said patent differs from the model, inasmuch as what I term the two-part blade appears to strike a spring which bears on a point, instead of the two-part blade operating wholly on the point, as in said model.

The cloth in the device in the bed runs under the blade and over the point; and when the two-part blade comes down on the spring-plate, the cloths are marked, or, in other words, to make it more plain, there is a spring operating in conjunction with the two-part blade in the point, apparently for the purpose of freeing the cloth.

Q. 5. Please look at the models now shown you, as certified by the Patent-Office on the 5th of June, 1872, and the tuck-marker now shown you with a label attached, marked "Plaintiff Yentzer's machine, sued on in said Fuller versus Yentzer and Scates," and marked by you on the under side with a "Z," and state, if you please, if there be any difference between it and the models, or what you have marked with an X as a model in your last answer, as to the mode or manner of their attachment to a sewing-machine.

A. They are all attached to the presser-foot of the machine in substantially the same manner, except one, which appears to be ar-
281 ranged to be attached to the bed of the machine by a screw or screws. They are, therefore, except the one, held independently of the bed-plate of the machine.

A. In model marked "Z" the mechanism for attaching it to the stock-arm is not a socket, but recessed foot, which is provided with a screw-slot, so that it may be held to the stock-arm in substantially the same manner as those provided with round socket-holes in their respective features.

Q. 6. Please state, without repeating a description in detail of the Fuller and Yentzer patents, what similarity or difference there may be, if any, between the forming of the markers and spring and adjustability of the Fuller and Yentzer patents and models of the tuck-marker, marked "X" by you, and the patent and model of C. D. Wheeler, dated February 14th, 1860, No. 27179, now shown you, with the certificate of the Patent-Office to the model, dated the 10th day of July, 1872.

A. In the Wheeler patent there is a bed-plate, provided with a hole, in which a spur, attached to a vibrating spring-arm, enters more or less, and destroys a certain portion of the elasticity of the cloth passing over the bed-plate, so that the cloth, on a line that the point has made, may be folded. The spring-arm is rigidly attached to the plate, so that both may be adjusted to or from a guide-frame which governs, or may govern, the width of the tuck to be made. In the Yentzer models referred to every one has a spring-arm attached to the bed-plate of the tuck-marker, and on the end of one of these arms is placed a pin or point, which may be operated in the hole in the bed-plate, and mark cloth passing over the latter, so as to form a line for a tuck in substantially the same manner and by substantially the same means as is done in the Wheeler patent, irrespective of any mechanism which may be employed to operate the several spring-arms.

In the bed-plates of the other two Yentzer models, certified to
282 by the Patent-Office, are holes through which or into which points may pass to mark cloth similarly to the Wheeler patent, and through their respective arms are holes in which points may be put to mark cloth.

It is clear that the means for making a mark on the cloth, as there shown in the Wheeler patent, are identical to the spring-arms, points, or holes in the said Yentzer models. They operate on precisely the same principle; and if the spring-arm of any one of the Yentzer models, except model X, were attached to the Wheeler bed-plate, it would perform the same function as does the spring-arm in the Wheeler patent on its proper bed-plate. The marker marked "X" has substantially the same

kind of a spring-arm as the other Yentzer models and the Wheeler model, as shown in the Wheeler patent, except that it does not carry a point, it being used to give a vertical reciprocating motion to a two-part blade, which operates on either side of a spur or point projecting upwards from the bed-plate. This point is a little broader than it is thick, while the other points are conical in form; and instead of hole being used in any part, the point enters the two-part blade interposed between the bed-plate and the spring-arm. The principle on which the marking is done is substantially the same as in the Wheeler patent, except that some more cloth is marked on every descending movement of the two-part-blade, and except that the two-part blade springs open a little when the said point enters it, the blade being made of spring material, and therefore it is yielding. The sides or peripheries of the bed-plates of the Yentzer model and the bed-plate of the Wheeler model are not yielding. The supporting-bar of the two-part plate in model X is new in principle and construction from any of the models referred to, although designed, together with the points, to perform the same function, which it does substantially.

The Wheeler device, as before stated, is adjusted in a frame, so that different widths of tuck may be determined. This is done by
283 sliding the bed-plate and spring through a frame-plate or bed-plate, both parts moving simultaneously, and being held by one set-screw.

The blade-point and spring-lever in model X is also adjusted as a unit, that is, by one movement, and is held in place by one set-screw. In this respect (that is, in the matter of adjustment) they operate on the same principle. The spring-arms of the three Yentzer models, (certified to,) carrying marking-pins and their respective bed-plates, provided with holes for the pins to operate in, are severally adjustable as a unit, that is, by a single movement in their respective bed-plate, and are held respectively by a set-screw, and in this regard, that is, the matter of adjustment to secure the proper width of tuck, they are substantially like the Wheeler patent.

In this regard I have not taken into consideration the quality of the work to be done, nor the quantity, nor the convenience of doing it. The adjustment in the Fuller patent previously referred to is not made, and cannot be made, by a single manipulation, owing to its construction, and a double adjustment is required to make any new adjustment, inasmuch as if the spring-arms are moved on their respective bar, the points and notches in the slot of the bed-plate have to be moved a corresponding distance, which is a second manipulation to accomplish the purpose, namely, to make a wider or narrower tuck, and in this regard the adjustment in the Fuller patent operates on a different principle, and are clothed with different mechanism, inasmuch as there is no unity or single movement which enables a single adjustment to be made. Further than this, the marking-point or marking-notch in the Fuller patent seems to be held wholly in the slot or bed-plate by friction, which arrangement is not shown or contemplated in any of the patents taken into consideration outside of this one. The spring-arms in the Fuller patent are compound in construction, but are formed to spring up and allow the points to rise from the cloth when they are relieved from the
284 pressure above. In this respect they operate on the same principle as the Wheeler patent. The marking-points, however, are somewhat wider, and take in a little more cloth at each downward stroke.

(Hereupon the defendants offered in evidence the several patents and

models to be referred to, and now marked as follows: Exhibits Nos. 1, 2, 3, 4, 5, 6, 7, (and the attached directions to No. 7,) 8, 9, 16, 17, and 18.)

Q. 7. Please examine the tuck-marker Exhibit 6, now shown you, and state, if you please, what in its mechanism is similar to the Fuller model device other than the spring carrying a blade, and another spring carrying a slotted notch.

A. There is no other similarity in the construction or mode of operation.

Q. 8. Please state what similarity or substantial identity there is between the Fuller tuck-marker, Exhibit 6, and the Fuller model, Exhibit 4, in respect to the mechanism as a whole, and the arrangement of the springs, and the forms of the markers in each respectively as a device.

A. The spring carrying the points, in Exhibit 6, is not a compound spring, but a simple one, while the spring-arms in model 4 are compound in construction. The first-mentioned device has a spring-bed for a slotted spring-plate to strike on. In this respect it is wholly different from model 4, which has no spring-bed at all. To make it more plain, the bed-plate carrying the point is a spring in Exhibit 6, and the slotted plate is a spring, and the latter is attached to the spring rigidly adjusted in the spring-plate. This construction is not shown in model 4.

The marking-points in Exhibit 6 are very much elongated transversely with the spring, and are placed on its flat side instead of on the ends of the springs, as in model 4. The curved slotted plate has a spiral frame, and as such, taking into consideration its ability to spring, is en-
285 tirely different in mechanical construction, and operates on a different principle from the notch-markers in model 4, although the slotted spring, with the spring-plate below carrying the points, appears to be designed for marking cloth. I find, however, nothing mechanically similar in Exhibit 6 and model 4, except it be the fact that both are designed to mark cloth and form tucks. In general construction it is so widely different that a person accustomed to using the one would hardly know how to attach or use the other without instructions.

Q. 9. State, if you please, if there be any similarity, or substantial identity, between No. 6 and No. 4, in the mode of attaching of the same to a sewing-machine.

A. No. 6 is complete, and when its parts are adjusted it can be fastened by screws to the bed-plate or table of the machine as a unit. This is not the case at all in model No. 4, inasmuch as the bed-plate in model 4 is a separate attachment. The bar supporting the spring-arms is a separate attachment. The bridge or frame supporting the bar or spring-arm is a separate attachment, and the curved presser-plate or spring is a separate attachment, all of which necessarily have to be put together respectively to their places on the machine, as previously described under the the head of Fuller model, and in this regard there is a very marked and wide difference in the mode and principle of attachment. This difference in attachment arises from the difference in the mechanical device in model 4 and Exhibit 6.

Q. 10. Please state the difference as between Exhibit 6 and model 4, as to the mode of operating the same by the needle-bar.

A. In Exhibit 6, the spring-arm carrying the spiral slotted plate is operated by a hook attached to a needle-bar; that is, it is lifted up by a hook, the spring carrying the spiral slotted plate down on to the cloth.

In this respect it is different from the mechanism in model 4, inasmuch as the spring-arms hold the markers off from the cloth until the spring-

arms are forced down by a bar projecting out horizontally from the needle-bar.

286 The operations are precisely the reverse of each other, because, in Exhibit 6, the marking is done by the force of a spring-plate, while in model 4 the marking is done by a positive blow and stroke on the spring-arms carrying their respective points on to the cloth. They therefore operate on different principles, and are provided with different mechanism to put their respective principles into operation.

Q. 11. Look upon Exhibit No. 7, now shown you, and state, if you please, if there be any similarity or substantial identity between No. 7, with the attached directions, and No. 4, in the mode of attaching of the same to a sewing-machine.

A. There is none.

Q. 12. Please state the difference as between Exhibit 7 and model 4, as to the mode of operating the same by the needle-bar.

A. In Exhibit No. 7 there is one spring-arm attached to the shaft of the vibrating arm of the machine, and acts directly upon a point attached to a separate bed-plate which is fastened to the machine. This arrangement is very simple, and dispenses with a compound spring-arm with both horizontal bars, and the bed-plate to hold points or notches. In fact it dispenses with all the principal features of mechanism in model No. 4, and operates on an entirely different principle, and by a different mechanism.

Q. 13. State, if you please, if there be any, and, if so, what substantial similarity or identity there is in any of the parts of Nos. 4 and No. 7.

A. There is none, except it be the fact that both devices are designed to mark cloth.

Q. 14. Look upon Exhibit No. 8, now shown you, and state, if you please, what similarity there is in its mechanism as a whole, its mode of attachment and principle of operation, or of any of its parts, with the model No. 4.

287 A. As a whole the mechanism in model No. 8 is distinct and different from the mechanism in model No. 4. The mode of attachment is entirely different in model No. 8 as compared with model No. 4, inasmuch as it is to be fastened directly to the bed of the machine, and thus obviate the necessity of attaching a part of the device to the bed-plate of the machine, and a part of it to the needle-arm, and a part of it to a frame projecting the stock-arm, as is the case in model No. 4. As to the mechanical construction, there is no substantial identity whatever, unless it be the fact that a notched blade is brought in contact with a long transverse blade to crease or mark cloth.

The marking in No. 8 is done by a rock-shaft, and in this regard it is different from all the models I have considered in this case, and operates on a different principle. The downward pressure of the blade is attained by a coil-spring fastened at one end of a rock-shaft, and at the other end to a frame in which the rock-shaft operates. The notched knife is lifted off from the blade by a crank, to be connected in some manner with the needle-arm.

Model 8 is a single attachment, and in that regard is distinct and separate in construction from the means of adjustment in model 4.

Q. 15. Look upon No. 9, now shown to you, and state, if you please, what substantial similarity or identity in its mechanism, as a whole and in its several parts—in its principles of construction, in its mode of operation, its mode of adjustment, its mode of attachment, and its form, and construction of the markers—if any there be, between it and model No. 4.

A. In model No. 9, as a whole, it is distinct and different from model 4. The spring in model No. 9 is not provided with any spur or point; neither has it a notch to mark the cloth.

The spring-arms in model 4 have points and notches for this purpose. In this there is a material difference. A notched arm is attached to a spring-plate and interposed between a plate and the aforesaid
288 spring-arm. There is no such notched arm with its respective spring in model No. 4, nor any equivalent therefor in any respect. The spring-arms in model 4 have their points operating directly in the notch or notches, and are distinct in that construction. The notched arm attached to its respective spring-plate strikes on a blade of a considerable length, said plate being a fixture on the bed-plate, and not being held by friction in the slot. In this respect the models 9 and 4 are very dissimilar in their mechanical parts. No part of model No. 9 could be made to take the place of any part of the mechanism of No. 4; neither would any mechanism in No. 4 answer the place of any mechanism in No. 9, except, perhaps, it be the holes to secure the plate carrying the under marker to the bed-plate of the machine. Model No. 9 has a single attachment, consisting of a guide-plate and bed-plate, adjustable on bed-plate of machine by a slot and screw. There is an upper arm-marker, which operates on a lower point or knife, in place of notches and points held by friction. A nib is struck up through the bed-plate of the marker. In this regard the device is wholly different from the adjustment in model 4.

Model 9 is to be attached to a machine by putting a screw through the bed-plate, but any such screw may be put through the bed-plate and through the guide, and thus hold them both together and to the machine. In consideration of model No. 9 there is no horizontal bar to hold the spring-arms, and there is required no bar running horizontally with the needle-arm to operate it, and there is no place to fix a pencil to it.

Q. 15½. Look upon tuck-marker Exhibit No. 16, manufactured by Singer Sewing-Machine Company, and tuck-marker No. 17, manufactured by Wilcox & Gibbs' Sewing-Machine Company, both under license from Fuller's own patent, and state, if you please, what substantial similarity there be, if any, between said tuck-markers, respectively, as a tuck-marking device, and the tuck-marking device described in the patent and shown by the drawings and model of Henry W. Fuller
289 and A. W. Goodell's patent of June 5th, 1860: 1st, as to the substantial similarity of mechanism as a whole; 2d, substantial similarity of the component parts; 3d, substantial similarity of the respective combinations and arrangement and form of markers; 4th, substantial similarity of the mode and manner of attaching the same to a sewing-machine so as to be operated by the needle-bar; 5th, the substantial similarity of the adjustability of the same for the purpose of getting the width of tuck.

A. In model 16 the mechanism, as a whole, is widely different from the mechanism in model 4, in construction and principle of operation. The mechanism in model 17 is also different from that in model 4, in construction and operation. In model 16 the notch is operated by a lever of the 3d class. In model 4 the notches or blades are operated by a bar, not a lever. There is a unity of adjustment in model 16; in model 4 there is no such adjustment. In model 16 the relative positions of notch and blade are not changed in attaining the width of tuck; in model 4 the notches and blades are relatively changed to attain such width of tuck. There is no substantial similarity in the two modes

except a notch working on a blade. Model 17, as a whole, is widely different from the mechanism in model 4. There is a unity of adjustment in model 17, and no such unity in model 4. Model 17 has a spring-slot operating upon a spring-point, or a point on a bar which may spring; model 4 has no such arrangement. The plate supporting the slot in model 17 is a curved spring-plate, and supports the blade, which arrangement is wholly different from model 4. The slot and blade might, however, mark cloth similarly to model 4. In model 4 one of the blades operates on an elastic bed of leather; the other blade operates in a notched piece of wood, which is more or less yielding on the blade. The wood and leather would soon wear out in use, and would not be likely, in the hands of common operators, to be of any considerable practicable value. The notches, slots, points or blades, in models
290 16 and 17, being of metal, are a great improvement over the notches and blade of No. 4, and are operative, while the devices in model No. 4 are not believed to be of any practical value. Model 17 is to be attached to the bed of the machine by screw-clamp. Such attachment is radically different from the manner of attachment in model 4, and the operation of a needle-bar on the spring-slot is right the reverse from the operation of model 4. Model 16 is attached directly to the bed of a machine, and no part of it is suspended from the stock-arm of the machine, as is the case in model 4. The mechanism in models 16 and 17, neither as a whole nor in part, could substitute any part of model 4 without reconstruction or invention.

Q. 15*a*. Please state, from your knowledge of mechanics and mechanical devices, and especially of sewing-machine attachments for tucking purposes, whether, in your opinion, a tucker device constructed like model No. 4, of the Fuller patent, would be of any practical value as a tuck-marker, and whether it would be practicable to keep the same in order and to operate with it as a tuck marker.

A. A model constructed as No. 4 now is, would not be of any practical use for marking cloth.

Further examination herein is hereby adjourned until 10 o'clock a. m., July 10th, 1873.

Examination resumed at 10 o'clock a. m., July 10th, as per adjournment.

Q. 16. State, if you please, if the forms of markers, to wit, a notch and blade, and a point and socket, or their equivalents, or either of them, for creasing or marking cloth, for the purpose of indicating a line of fold of the cloth, in the manufacture of wearing apparel and household goods, or for the creasing or marking of metals, paper, &c., by manufacturers in that line, were known to the arts and in common use prior to the year 1860, within your knowledge and observation And, in this connection, please first state what information and knowledge you may have in respect to the state of the arts upon this subject previous to 1860.

291 A. Prior to 1857 my attention was called somewhat to the manufacture of cloth into garments by seeing a Singer sewing-machine in operation. At that time I was a practical draughtsman, and familiar in working wood, and, to some considerable extent, in working metal, and also with the mechanism generally employed to do such work. Some time in the year 1850, or before, I saw in operation a paper-folding device, sketched and described in a deposition made by me, and filed in this case September 2, 1872. This device was used more especially to fold foolscap paper in three sheets. About the time

that I saw the said Singer sewing-machine, cambrics were laid on a board having a longitudinal groove, and creased by means of an ivory marker or paper-cutter, which was moved on the top of the cloth or cambric, forcing it into the groove; the cloth thus bent would readily fold on the mark. Notches and blades were used 25 or 30 years ago for grooving scythe-blades; such notched part was fastened to a block, and a blade or somewhat sharp instrument was attached to a spring-beam, which struck a succession of blows and creased the metal plate as it was moved longitudinally over the notched mechanism. Notched and pointed dies were in common use at that time, or before, for countersinking sheet metal on one side and raising projections on the other side. Sharp-edged, rotating wheels have been made, by suitable mechanism, to travel over a grooved bed, and marked metal to be bent on the mark so made. Beading and burring tools for grooving and marking metals, bending it, &c., have also been used for 25 or 30 years past, of my own knowledge. Conical points attached to vertical reciprocating bars, for perforating metals, were used in combination with a bed-plate, in the manufacture of nutmeg-graters, 20 or more years since, said bed-plate being provided with an orifice into which the conical point was projected in countersinking, and perforated the tin. These several devices, so far as marking or creasing metals, paper, and cloth, operated on the same principle and by the same mechanism as the notch and blade does in models Nos. 4 and 5, hereinbefore mentioned by me.

292 Q. 17. State, if you please, your means of information and knowledge of the arts in relation to the common use, prior to 1860, *of the use* of a spring for the purposes of lifting an upper from a lower marker in the stamping of official seals and of various manufactured implements, metals, clothing, household goods, and creasing of cloths, in such manufacture.

A. The upper members of stamping and sealing devices were, prior to 1850, lifted off from the lower plate by means of springs after such upper members had been forced down to perform their work. The balance of this answer will be found where I have spoken of a spring-beam and grooving scythe-blades. My means of information is, that I have seen the devices named—I mean the stamping and sealing devices in use and used them, and witnessed the manufacture of scythes frequently prior to the date mentioned. These springs for lifting the upper member of the devices mentioned performed substantially the same function as the spring does in model No. 5 and the spring-arms (proper) in model No. 4, hereinbefore referred to.

Q. 17*a*. State any difference you find between Exhibit 18 and Exhibit 2 X.

A. The only substantial difference is, in 18 the plate which supports the movable plate is fastened to the bed-plate of the machine. In model 2 X, such a plate is fastened to the presser-foot.

The further examination of said witness is adjourned until to-morrow, the 11th inst., at 10 o'clock a. m.

On this 11th day of July, 1873, at 10 o'clock a. m., I proceed with the further examination of said witness, as follows:

Examination of this witness in the case No. 2, above.

293 HENRY W. FULLER AND ISAAC W. BARNUM *vs.* ENOCH S. YENTZER AND WALTER SCATES. } No. 2.

The complainants stipulate that the grounds of complaint of infringe-

ment of the Rose patent, re-issued to Henry W. Fuller, December 1st, 1868, by the above-named defendants, is under the 6th claim of that patent only.

It is further stipulated by the parties that the evidence, models, and exhibits of the complainants and defendants taken in any one of the foregoing suits may be read in either of the others, so far as applicable.

The defendants, in the second case, as hereinbefore stated, offer in evidence, as a part of said witness' examination-in-chief, his affidavit taken and filed in this case September 2d, 1872.

Thereupon the defendants offered in evidence the Rose patent, model No. 10, and tuck-marker, claimed to be manufactured under it, numbered 11, 12, and 15.

Questions to GEO. L. CHAPIN, by defendants:

Q. 18. Look upon claim 6, re-issue of the Rose patent, to Henry W. Fuller, as assignee, of December 1st, 1868, and upon the Rose certified model offered in evidence, marked Exhibit No. 10, and also upon the patents to Enoch S. Yentzer, of April 11th, 1871, and May 28th, 1872, and tuck-marker No. 2, offered in evidence, marked by Mr. Chapin with an X, together with the certified models marked Exhibit 1, and
294 state, if you please, what substantial similarity there is, if any, between the claims of the said several patents and tuck-marker and models, as to the connection together of the upper and lower part, and adjustability of the tuck-creasing mechanism in its relation with a needle of a sewing-machine and the operation thereof by a sewing-machine, and of the substantial differences in these respects, if any.

A. In model No. 10, the mechanism is such that it, as a whole, is moved back or forth when an adjustment is to be made; no part thereof is arranged to be adjusted relative to any other part. Two of the models No. 1 have no unity in adjustment, but one part of the frame-work necessarily has to have its position relative to the other part of the frame-work changed, in order to attain an adjustment to or from a needle. In this respect two models (1, 1) are wholly different in the adjusting mechanism to model 10. Model (2 X) is adjusted similarly to models (1, 1,) and is, therefore, also different from model 10 in its means of adjustment relative to the needle. One of the models, "1," has a compound adjustment, unlike model 10. In this answer I have taken into consideration the mechanism claimed, and not an explanation of claim, as I understood the question.

Model "2 X" and two of certified models "1" are attached to the stock-arm of the machine by means of sockets or presser-feet, and have no permanent connection with the bed-plate of the machine, the attachment being a suspended one, and the adjustment is made by means of a two-part tucker-plate, which is adjustable relative to itself. In this respect they are wholly different from model No. 10, because the latter is to be adjusted by *by* the same set-screw which holds it to the bed-plate of the machine, the bed-plate of model No. 10 being slotted for that purpose. For the remainder of this answer I refer to my affidavit offered in evidence in this case, marked "2d case."

The further examination of G. L. Chapin was continued in case No. 3 in the caption above, of—

295 HENRY W. FULLER AND ISAAC W. Barnum
vs.
HERMAN B. GOODRICH. } No. 3.

It is stipulated by the complainants that their claims, or complaints of infringement in this case, are only under claims 1, 2, 5, 6, and 8.

The complainants admit that levers, simple and jointed, were well known to the arts long prior to 1860, and in common use for various mechanical purposes other than tuck-creasers or markers.

The complainants further admit that the needle-bar of sewing-machines, as a means of communicating mechanical power in sewing-machines, was well known in the arts, and in use, long prior to 1860.

The complainants further admit that nippers or pinchers, serrated or smooth, as mechanical devices, were well known to the arts, and in common use, long prior to 1860, except in connection with tuck-creasers or markers.

The defendants thereupon introduced in evidence the affidavit, heretofore taken by the defendants, of George L. Chapin, and filed in this case September 2d, 1872.

They further introduced in evidence the tuck-markers manufactured by H. B. Goodrich, defendant, numbered 13 and 14, and also tuck-marker No. 15, manufactured by Fuller under Rose patent.

Questions to said GEO. L. CHAPIN by the defendants:

Q. 19. State, if you please, what substantial similarity there
296 may be, if any, in the mechanism referred to in claim 1 of the Rose patent, re-issued to Henry W. Fuller, December 1st, 1868, and the model Exhibit No. 10, and the mechanism of the model Exhibits Nos. 13 and 14, for forming a ridge or ridges on fabrics.

A. As a whole, there is no substantial similarity between the Rose patent and its model No. 10 and models Nos. 13 and 14.

Q. 20. State, if you please, what substantial similarity, if any, there be between the same mechanisms (I mean the Rose patent and model) referred to in the former question, as to the method of nipping or pinching the fabric to form ridges or creases thereon, and the tuckers Nos. 13 and 14; and if you find any substantial difference between them, please point out particularly wherein it consists, as set forth in the 2d claim of the re-issued Rose patent.

A. There is no substantial similarity in construction or mode of operation.

Q. 21. State, if you please, what substantial similarity there may be, if any, between the combination of the creasing device or devices of a tuck-marker with a jointed lever, as set forth in the 5th claim of the said Rose patent, and the combination of the tuck-creasing device, as shown in Exhibits Nos. 13 and 14, above offered in evidence.

A. In my first deposition in this case I have answered fully as to model No. 13, denying any substantial similarity in combination as compared with the Rose model. I now add that there is no substantial similarity in model 14, compared with the Rose patent and its model No. 10.

Q. 22. State, if you please, what substantial similarity, if any, you find

in the tuck-creasing mechanism set forth in claim 6 of the re-issued Rose patent and the combination with the tuck-marker in the 8th claim of said patent, in relation as to the connection of the upper and lower parts, and being together adjustable in its relation with the needle-bar, as described in the 6th claim; and in relation to having its upper and under parts connected and together adjustable, as to lever and
297 spring, as set forth in the 6th claim of said patent, with the tuck-markers, Exhibits Nos. 13 and 14.

A. The mechanism in the 6th clause of the Rose patent is substantially different from models 13 and 14. The devices in the said claim are together adjustable, that is, there is a unity of movement when an adjustment is made on a sewing-machine, to and from the needle. There is no such unity of adjustment in models Nos. 13 and 14. The parts combined, as shown in the 8th clause of the claim in the Rose patent, are not shown in models 13 and 14.

Q. 23. Look upon tuck-marker manufactured by complainant Fuller, under his Rose patent, now shown you, and marked Exhibit No. 15, and state, if you please, what, if any, substantial similarity there is in it as a tuck-marking device, either as a whole or in its several parts—their combination with the other parts of the device—its mode of attachment to a sewing-machine, and the mode of adjusting the markers in relation to the width of tuck, to or with the Rose model No. 10, heretofore shown you, in these several respects.

A. Model No. 15 is provided with a two-part bed-plate, one part being adjustable on the other, and have their positions changed to attain a different width of tuck. Model 10 has a single bed-plate, and the device, as a whole, is a unity in adjustment, i. e., together adjustable.

In this respect the two devices are wholly unlike, and the mechanism in model 15, as a whole, is materially different from that in model 10.

In model 15 there are two adjustments; one adjustment is made by a friction guide-plate, the other is made by changing the relative positions of the two-part bed-plate, one part of the bed-plate being provided with a long slot for the bridge or nut of the spring-arm to operate in when making such adjustment. Model 10 has no such friction-guide and no equivalent therefor, while model 15 would be inoperative without it; therefore, in the matter of adjustment and friction-guide, model 15 is wholly unlike model 10. The bed-plate in model 15 is not mov-
298 able on the screw which holds it to the bed of the machine, while model 10 is movable on its holding-screw. In this respect, therefore, there is a very wide difference. In model 10 the needle-bar operates a pivoted lever. Model No. 15 has no pivoted lever, but has a bent spring-lever attached to a movable operating plate on a stationary plate. Model 10 has no such arrangement. The jointed lever in model 10 has a spring and serrated jaw attached to it. The spring-lever in model 15 has no such devices attached to it. It is, therefore, wholly different. The pinching in model 10 is done by two serrated jaws operating directly above a bed-plate. Model No. 15 has no serrated jaws at all, and in this respect the two models are wholly unlike.

In model 10 the pivoted lever is attached by means of a spring to a serrated jaw. The spring-lever in model 15 is not attached to anything except to the bed-plate. In this respect models 10 and 15 are wholly unlike. Spring-lever in model 15 could be made no use of, as a part of model 10, and the only like function is that the spring-lever in model 15 is operated by the needle-bar somewhat in the manner as pivoted lever in model 10. Model 15 is provided with a curved push-bar (not a jaw) which is rigidly fastened to the bar of a coiled spring, which, together

with the push-bar, pass through an upright slotted plate, said plate preventing the bar of the spring from rising too high. Beneath the curved end of the push-bar is placed an inclined plate over which the cloth passes, and on which the curved end of the push-bar operates. Just back of the curved end of the push-bar is a recess formed on a plate above the cross-plate, the back part of said recess part forming a stationary shoulder, against which the cloth is impinged by the curved end of a push-bar, operated by means of the curved spring-lever being brought down under the bar of the coiled spring, as is the case when the needle-arm is in operation. The pinching-devices in model 15 are in construction, mode of operation, wholly unlike the mechanism in model 10.

None of the mechanism in model 15 could be made to take the
299 place of any of the mechanism of model No. 10. A skillful mechanic, familiar with Henry W. Fuller's patent, could not, from the description and drawings, make a device, or anything approximating a device, as shown in model 15.

Q. 24. Please state, from your knowledge of mechanics and mechanical devices, and specially of sewing-machine attachments for tucking purposes, whether, in your opinion, a tucker-device constructed like the model No. 10 of the Rose patent, would be of any practical value as a tuck-marker, and whether it would be practicable to keep the same in order and to operate with it as a tuck-marker.

A. As to keeping of it in order, I cannot say. It is certain that the model, as it now is, won't tuck-mark, as I have ascertained by trial. I presume it might be adjusted to act to some extent, but for general purposes it would not be of any particular value to attain different width of tucks.

Cross-examination of said witness on the part of the complainants, by E. B. Barnum, esq., in the 1st case of—

HENRY W. FULLER AND ISAAC W. BARNUM } No. 1. On Fuller's
vs. } patent of 1860.
ENOCH S. YENTZER AND WALTER SCATES. }

C. Q. 25. Mr. Chapin, what knowledge have you of the art of tuck-creasing, and how was that knowledge obtained?

A. I obtained my knowledge of tuck-creasers by examining the
300 state of the art in the Patent-Office, Patent-Office Reports, and from machine-operators and inventors. I have no means of saying, definitely, how much knowledge I have.

C. Q. 26. When did you first see a tuck-creaser?

A. In 1866 or 1867, I saw tuck-creasers something of the style of model 6. I don't know who made it. It was brought to my office in this city by a gentleman who wanted my opinion as to whether the one he had would be an infringement.

C. Q. 27. Who was the gentleman?

A. I am unable to give his name, as my records of Patent-Office business were burned.

C. Q. 28. Is your knowledge of the art prior to '66 or '67 confined to your researches in the Patent-Office?

A. No.

C. Q. 29. State how it was derived.

A. I don't think I had much knowledge of tuck-creasers prior to '66, except what I may have seen in the Patent-Office Reports.

C. Q. 30. Have you been familiar, personally, with the state of the art since?

A. I have examined the state of the art two or three times since 1866, and have some considerable knowledge of it.

C. Q. 31. So far as you know, who first made an automatic tuck-creaser?

A. I don't know.

C. Q. 32. Are you thoroughly acquainted with the invention of Henry W. Fuller, as described in the specification of his letters-patent dated June 5th, 1860?

A. I understand the invention.

C. Q. 33. Do you understand its principle, mode of operation, and its essential elements?

A. I think that I do.

C. Q. 34. Are you not sure about it?

A. I am sure about the marking-devices and the means to operate them, but I might have to examine the specification to put the cloth through the machine.

C. Q. 35. What are the essential elements of that invention for tuck-creasing?

301 A. The spring-arms, carrying the notches or blades, the bar to which they are attached, the slotted bed-plate supporting the notches or points, and the horizontal bar attached to the needle-arm for operating the spring-arms.

C. Q. 36. Does not the specification provide for the omission of the horizontal bar?

A. No; it don't say anything about the horizontal bar, as I have termed it.

C. Q. 37. Does not the specification provide for the attachment of the upper marker directly to the needle-arm?

A. There is no such provision made.

C. Q. 38. Does not the specification say that that can be done?

A. The last interrogatory is incomprehensible as coupled with the former one.

C. Q. 39. Does not the specification state that the upper marker can be attached to the needle-arm instead of the presser-foot?

A. I don't find any such statement in the specification.

C. Q. 40. What is meant by the language in the specification, as follows: "It will be evident that the marking notch or point *i* or *k*, or both, might be placed directly on the arm *e*?"

A. It means that the inventor contemplated a change in construction of the device without proposing any mechanism to make such change.

C. Q. 41. Would it require invention to make such change?

A. Yes; or entire new construction.

C. Q. 42. Question repeated.

A. It is impossible for me to define exactly what would be invention in that case, inasmuch as I have not yet devised any means whereby such attachment would be made operative.

C. Q. 43. What is invention?

A. That production which requires more than the skill of an ordinary mechanic.

302 C. Q. 44. Look at model 4, and read that part of the specification previously quoted, and the words immediately following them in the same sentence, and state whether an ordinary mechanic could place a marking notch directly on the arm and provide a spring between that arm and that notch or point, without invention.

A. If the attorney means the notch shown in model, I answer no.

C. Q. 45. State why.

A. In the model there is a wooden notch and a leather notch, and means would have to be provided to attain such an attachment. Further than this, said notches, if attached, would be four or five times too short to be of any use whatever. This would also be the case with the point in the bed-plate if that were to be attached to the arm *e*.

C. Q. 46. In the use of the word means, in your previous answer, what signification do you give to it?

A. Mechanism.

C. Q. 47. What mechanism, other than that pointed out in the specification, would be necessary to make the connection between the point *i*, or marker, and that arm?

A. The attorney practically requests me to make an invention, in the above question, which I have not now time to do.

C. Q. 48. Then it would require invention to follow the direction of the specification in making the change referred to?

A. The specification don't give any directions how to make such change. It only says that it may be made.

C. Q. 49. Would it require invention to make that change?

A. I have previously answered this question; but will say I think it would.

C. Q. 50. Do you know whether it would?

A. I can't conscientiously answer the question any more positively.

C. Q. 51. Do you refuse to swear that it would?

A. I refuse to swear positively that it would.

303 C. Q. 52. Assuming that this change is made, state what, in that case, would constitute the essential elements of the Fuller invention.

A. From the drawings and specification, I can't assume that any such change could be made. Therefore I couldn't determine anything about essential elements in an inchoate state, or elements which, perhaps, might present many different forms.

C. Q. 53. Question repeated.

A. The interrogatory is too indefinite to admit of any clearer answer than I have given.

C. Q. 54. Question again repeated.

A. If I should indorse counsel's assumption, I should say there wouldn't be any essential element left. The device would then be wholly inoperative and worthless.

C. Q. 55. Would the bed-plate carrying the lower marker, the arm *e*, carrying the upper marker, be left in case of such change?

A. Yes.

C. Q. 56. State why, with these left, the device would be wholly worthless and inoperative.

A. Because, as I have stated before, that the markers or points, as shown in model, would be four or five times too short to reach the bed-plate; and further than this, only one class of work could be done, because there would be no means, in case they were long enough, to make an adjustment on the arm.

C. Q. 57. Would it require invention by an ordinary mechanic to make the upper notch or point long enough to engage the lower markers, or to arrange the upper notch or point adjustable on the arm *e* in a manner similar to that shown in the bar *g*?

A. The points or notches in the model could not be made long enough by anybody if they were attached to the needle-arm to reach the notches or points in the bed-plate, neither by invention or otherwise. Such notches or points could not be made adjustable on the needle-arm *e* by

any such arrangement as bar *g*, and at the same time be attached to the arm *e*.

304 C. Q. 58. Why could not the points or notches be made long enough?

A. Because they couldn't be stretched long enough?

C. Q. 59. Why could not this notch and point be attached to the arm *e* by the same device employed to attach the spring-arms to the bar *g*?

A. Because it would throw the points and notches into a horizontal position.

C. Q. 60. Why could not this notch and point be attached to the arm *e* by a similar device to that employed to attach the spring-arms to the bar *g*?

A. Because the points would be thrown into a horizontal position, inasmuch as the device spoken of and attached to bar *g* is bent, so that the lower part of it is nearly vertical; that is, the pointed part or notched part is nearly vertical, while the main-spring is nearly horizontal. If the horizontal part be placed vertically, the present vertical part would be horizontal, and therefore useless and inoperative.

C. Q. 61. Would it require invention to so bend that device around the arm *e* so as to permit the upper notch or point to maintain a vertical position?

A. If it could be done at all, it could be done without invention.

(The further examination of said witness is hereby adjourned until to-morrow, the 12th inst., at 10 o'clock a. m.)

Continuation of the cross-examination of said witness this 12th day of July, 1873, as per the above adjournment:

C. Q. 62. In your testimony in these cases, and especially in your cross-examination, thus far, have your answers been based on form and material, rather than substantial similarities?

A. They have been based on the construction of parts and mechanical equivalents, as I found them in the patents and models.

305 C. Q. 63. State what is the principle involved or embodied in Fuller's invention.

A. Automatically marking cloth is what is sought for; the principle to be clothed in mechanism.

C. Q. 64. How is the mark made?

A. By a notch or blade operated by mechanism.

C. Q. 65. How do the creasing-points make the marks?

A. By swaging the cloth into a notch by means of a point or blade.

C. Q. 66. What is the element or characteristic of the cloth which admits of the cloth being creased?

A. Flexibleness.

C. Q. 67. Does this characteristic explain the permanent character of the crease?

A. Not wholly. A part of the flexibility of the cloth is temporarily made inactive by the swaging, and therefore remains set in position.

C. Q. 68. Is not the characteristic which admits of this result rather the stiffness in the material due to starch or dressing?

A. Yes, in part, but not wholly; unstarched goods may be creased.

C. Q. 69. Is it not true that the crease is made by the Fuller device by breaking the cloth, or the stiffness of it, over the blade?

A. The cloth might be cut, but not broken, in the sense of the word "break." Stiffness is a condition of things, and I can't say that a condition could be affected by a blade or notch.

C. Q. 70. Is not flexibility a condition of things?

A. It is.

C. Q. 71. Have you not already stated that the flexibility was affected by the notch and blade?

A. I said that a part of the flexibility of the cloth is temporarily made inoperative by swaging (meaning the swaging of the cloth.) I had no reference to swaging starch or dressing.

C. Q. 72. Is that not affecting the flexibility?

306 A. Yes, indirectly, by first swaging the cloth as the result, not a primary movement.

C. Q. 73. Now, in that same sense of a condition of things, is it not true that the crease is made by the Fuller device by breaking the stiffness of the cloth over the blade by means of a notch?

A. Stiffness, per se, I could not say could be broken. Stiffness of cloth might, perhaps, be broken. But I think the word "broken" could not be properly used to describe creasing cloth, in the sense employed by the attorney. "Swaging" is a much better term to describe the operation of the blades and notches, and does not indicate that the cloth is to be injured, while "breaking" does indicate such injury. Commonly, fabrics are not described as broken, but creased, folded, torn, rent asunder, or cut, &c.

C. Q. 74. Do you understand the sense in which I used the word or words "breaking the stiffness of the cloth?"

A. I don't understand that there is any such technical term, but if the attorney will put on the record what he means by "breaking," I will make a prompt answer.

C. Q. 75. Question repeated.

A. I do not understand there is any sense or inteligible signification in the words "breaking the stiffness of the cloth," as applied to the operation of the notches and blade in the Fuller patent.

C. Q. 76. Did you not state in answer to question 73, that stiffness of cloth might, perhaps, be broken?

A. Yes; but I qualified that by the words, "but I think that the word 'broken' could not be properly used to describe creasing cloth in the sense employed by the attorney. 'Swaging' is a much better term to describe the operation of the blades and notches, and does not indicate that the cloth is to be injured, while 'breaking' does indicate such injury. Commonly, fabrics are not described as broken, but creased, folded, torn, rent asunder, or cut," &c.

C. Q. 77. What did you mean by the words "the stiffness of the cloth might, perhaps, be broken?"

307 A. I had in my mind that cloth of some kind might, perhaps, be put in such a condition that it would break from hardness or brittleness when bent on too acute an angle.

C. Q. 78. In those words do you anywhere say or intimate that the cloth might be broken, to wit, "stiffness of cloth might, perhaps, be broken?"

A. Yes. I said so in answer 73, but qualified the words in the same answer, and repeated the qualification in answer 76.

C. Q. 79. In the Fuller invention, is not the crease made by doubling the cloth or folding it over the point or blade by the notch?

A. It might be said that the cloth is folded or doubled.

C. Q. 80. Does not the specification speak of an elastic surface or pad as an alternative device to the notch?

A. Yes.

C. Q. 81. Would the employment of this elastic surface or pad in

place of the notch alter the manner in which, or the principle on which, the crease is made?

A. I cannot answer fully. I am not sure that a proper crease in the cloth could be formed by the use of such elastic pad. I have experimented in that regard without satisfactory results. An elastic pad without a notch would involve a new principle in contradistinction to an inflexible notch, but it might, perhaps, answer the purpose. Much would depend on how elastic the pad was.

C. Q. 82. What new principle would be involved in this change?

A. A rebound of the blade or recoil of it would be the result of a blow from it on the elastic pad.

C. Q. 83. What effect would this rebound have upon the creasing, and how would that effect be produced?

A. The reflex action of the blade would not effect the creasing.

C. Q. 84. Would not the crease be made by doubling or folding the cloth over the blade?

308 A. Not wholly. It would be made somewhat by a doubling process, by the blade forcing the cloth down into the elastic bed, forming a crease, a transverse section of which would conform in contour more or less to a transverse section of the blade.

C. Q. 85. Is it not equally true that the crease would be made by a doubling process by the elastic bed forcing the cloth down on to and over a blade?

A. Such would be a reverse operation of the notch and blade to accomplish the same result.

C. Q. 86. State whether the specification of the Fuller patent describes a tucking-device in such manner that a competent mechanic could construct such tucking-device so that when made it would be a practical, working machine, capable of doing what the inventor therein claims it will do.

(Defendants' counsel here states, in relation to this question, that it is not a cross-examination on his 15th question and answer of the direct examination, and he should therefore claim the right to re-examine this witness upon this question of utility of tuckers made generally under the specifications of the patent.

Thereupon the complainant withdraws the question.

The further examination of witness is hereby adjourned until the 14th inst., at 10 o'clock a. m.)

Examination is resumed pursuant to adjournment on this 14th day of July, 1873.

C. Q. 87. State why a model constructed as No. 4 now is wouldn't be of any practical use for marking cloth.

A. Arms *g* and *e* are loose on their bearings and the points and notches don't meet properly. Further than this, it is not believed that a point or notch could be made properly adjustable in the bed-plate, and I do not think that the upper adjustment could be made at all times to meet the position of a notch and blade in bed-plate, inasmuch as any lateral movement of the stock-arms would change the relative position of the blades and notches. The mechanism generally works to a

309 disadvantage in consequence of the compound adjustment. The arms *e* and *g* might perhaps be tightened, but the arm *e* would hardly hold in position by the present means of fastening, so as to operate both spring-levers for any considerable time. It might operate indifferently for a short time. The notch or blade requires adjustment in the slotted plate, and as it would soon be worn by a sliding movement it could not be properly held by friction alone.

C. Q. 88. Does not the specification provide for the permanent attachment of these points to the bed-plate?

A. It says they may.

C. Q. 89. Does the specification anywhere speak of the use of this pencil or similar means for marking tucks?

A. I think not, but it does for quilting.

C. Q. 90. State how you would adjust model 4 to mark a crease for a tuck.

A. It could not be adjusted to mark, unless it should be first repaired or somewhat reconstructed.

C. Q. 91. Is model No. 4, defendant's exhibit, now adjusted as described in the specification to make a crease for a tuck?

A. It is not. The points and notches do not strike each other properly. Further than this, some parts are loose, and in its present condition it couldn't be used to tuck.

C. Q. 92. Are the parts substantially in the positions in relation to the sewing-machine, as described in the specification, when ready to make a crease for a tuck? If not, why not?

A. No. The arm *e* wont operate only one marker. Further than this, arms *g* and *e* must be in rigid positions on the stock-arm and needle-arm, in order to occupy relative positions to a machine when in use.

C. Q. 93. If the arm *e* is made so as to operate both markers, and with the arm *g* made rigid, then are the parts substantially in the positions (as described in the specification) in relation to the sewing-machine, as ready to make a crease for a tuck?

A. Yes, substantially in the position.

310 C. Q. 94. Does the curved guide in Fuller model No. 4 perform the same office as the smoothing-finger in the Yentzer device, Exhibit No. 2 X—3 Z?

A. If you mean the spring-rod *a*, the curved arm might, in a measure, but it is not for the same purpose.

C. Q. 95. State what different purposes they are intended for.

A. Curved arm, in model 4, is to hold the folded part smoothly, as it passes under the presser-foot. Spring-bar *a* is to support a two-part blade, but to be operative, the folded part must run under it, and perhaps may be smoothed by such movement.

C. Q. 96. From your knowledge of the art, who first attached the upper marker in defendant's model No. 2 X to that spring-bar, and when was it done?

A. I first saw said upper marker, I think, in '69 or '70, in the Patent-Office. I have no knowledge as to who made it, except from official reports.

C. Q. 97. Are not sewing-machines always provided with sewing-gauges?

A. Some are not, but they generally are.

C. Q. 98. From your knowledge of the art, when was a gauge first incorporated with an automatic tuck-creaser?

A. The end of the bed-plate, or the end of the curved spring-plate in the Fuller patent, I think, was the first I ever saw.

C. Q. 99. When was a gauge, for the purpose of spacing the width of tuck, incorporated with an automatic tuck-creaser? Who incorporated it?

A. In 1860, in the Fuller patent. In answering this question I have not considered the Wheeler patent.

C. Q. 100. What constitutes such gauge in the Fuller patent?

A. The arm *g*, carrying the adjustable spring-arms, with their points and notches, in combination with the adjustable lower notch or point, perform the functions of a compound gauge, in contradistinction to a simple gauge.

C. Q. 101. Do the features enumerated in your last answer con-
311 stitute a gauge, or operate as a gauge, for spacing the width of tucks?

A. The width of tucks may be determined by manipulating the parts enumerated. I don't mean by this that the tucks could be made by said parts.

C. Q. 102. Please state how the width of tuck is obtained in Exhibit No. 2 X?

A. By sliding one part of a two-part bed-plate on the other part.

C. Q. 103. What are the essential elements of defendant's device marked "Exhibit 3 Z?"

A. A two-part bed-plate, adjustable relative to itself; the spring-arm carrying a conical point; a slot in the bed-plate to operate in, and the seam-guide.

C. Q. 104. Is not that device a compound sewing-machine attachment?

A. Yes; if I may understand the word compound to mean a combination.

C. Q. 105. Why is the seam-guide an essential element of that tuck-creaser?

A. Because, in stitching the folds of a tuck, there has to be some guide to direct the cloth properly over the bed-plate of the machine to attain an even row of stitching, and for the purpose of putting such row of stitches more or less from the edge of the tuck.

C. Q. 106. How was that end attained prior to Yentzer's invention?

A. I state from memory, that in '67 or '68 I saw one or more models, or tuck-creasing attachments, provided with a seaming-gauge or gauges, in my office in this city, but I couldn't say now who the inventor thereof was, but seaming-gauges, I believe, were used in gatherers before that time. It was attained in the Singer sewing-machine, by a single stop or guide, as early as 1856.

C. Q. 107. Do you not know that, in the earlier years of automatic tuck-creasers, the ordinary sewing-machine gauge performed the office of the seamer?

A. I know that such an arrangement is spoken of in the Rose
312 patent, but I never saw any such devices that were of any use as a combined tuck-marker and stitching-gauge.

C. Q. 108. Does the seamer perform any part in the tuck-creasing, except so far as guiding the edge of the fold?

A. In Exhibits 2 X and 3 Z, no.

C. Q. 109. In the Fuller invention, when applied to a sewing-machine, would not the sewing-machine gauge perform the same function as the seamer?

A. I don't think it would, because the bed-plate would appear to prevent such gauge from being attached to the bed of the machine near enough to the needle to be operative.

C. Q. 110. When the Fuller invention is adjusted for tucking, is not its bed-plate out of the way of the sewing-machine gauge?

A. That would depend entirely on how wide the tucks were to be. I should say, however, no.

C. Q. 111. Does the seamer perform any part in the tuck-creasing operation?

A. No.

C. Q. 112. Then does the seamer constitute an essential element of the defendant's tuck-creaser in models 2 X and 3 Z?

A. Yes.

C. Q. 113. Do not the defendant's patents describe it as an independent element of his combined attachment?

A. Yes, in the matter of adjustment.

C. Q. 114. Do they not in use?

A. Yes, without the turner, in felling or making the lapped seam, and edge-stitching, but not when used as a tucker, in model 2 X. It is also used independently when hemming is being done.

C. Q. 115. Does not the defendant's patent, dated May 28, 1872, provide that in case of hemming, felling, edge-stitching, &c., the tuck-creaser is to be removed?

A. It is to be detached.

313 C. Q. 116. When detached, what constitutes its essential elements?

A. Bed-plate, spring-arm, spring-bar, two-part blade and point, in Exhibit No. 2 X; and in Exhibit No. 3 Z, the spring-lever carrying a point, the bed-plate provided with a slot and a spring-bar.

C. Q. 117. State whether there is any substantial difference in principle between the operation of the creasing-points in Fuller's invention and the creasing-points in the exhibits last referred to.

A. The only substantial difference that I see in model 3 Z is, the conical point might divide the threads to some extent. The only substantial difference in model 2 X is that the two-part blade is spread apart by the point.

C. Q. 118. Do these differences change the principle by which the cloth is creased or folded?

A. Only so far as in models 2 X, 3 Z, the threads might be pressed and somewhat divided to temporarily deprive the cloth of its flexibility, while in the Fuller patent there is a vertical pressure and apparently not any division of the threads.

C. Q. 119. Is not, in all three of these devices, the cloth doubled or folded over a point or blade?

A. I don't think folding or doubling expresses it, but I should say it was formed over a point or blade in each case.

C. Q. 120. In Exhibit No. 3 Z do you find a bed-plate carrying or provided with an under marker and an arm or bar carrying an upper marker?

A. I find a spring-lever or arm carrying a point, and a bed-plate provided with a slot or notch arranged to mark or crease.

C. Q. 121. Is the bed-plate carrying the under plate or slot so arranged as to rest upon and be supported by the bed-plate of the sewing-machine?

A. A projecting nib only is required to rest upon the bed-plate of the machine.

314 C. Q. 122. Is the arm or bar carrying the upper marker or point so arranged as to vibrate in unison with a needle when in use upon a sewing-machine, in model 3 Z?

A. Yes; it is so intended to vibrate.

C. Q. 123. In model Exhibit No. 2 X do you find a bed-plate carrying an under marker or blade so arranged as to rest upon or be supported by the bed-plate of the sewing-machine?

A. Yes; the marking end rests upon the bed-plate of the machine.

C. Q. 124. Do you not find in the latter exhibit an arm or bar which carries the upper marker or two-part blade?

A. Yes.

C. Q. 125. Does not the upper marker or two-part blade vibrate in unison with the needle?

A. Nearly so; it does not commence to vibrate so soon.

C. Q. 126. Do you not find in Exhibits 6, 7, 8, 9, 16, and 17 a bed-plate carrying an under marker or blade, or provided therewith, so arranged as to rest upon and be supported by the bed plate of the sewing-machine?

A. Exhibit 6 is provided with such plate. In model No. 7 the bed-plate appears to be attached to the table or to a larger bed-plate. No. 8–9 have such a bed-plate. No. 16 is provided with such plate, and, if I remember correctly, No. 17 is.

C. Q. 127. Do you not find in Exhibits 6, 7, 8, 9, 16, and 17 an arm or bar carrying an upper marker or notch so arranged as to vibrate in unison with the needle of a sewing-machine?

A. Yes.

C. Q. 128. Examine model Wheeler patent, marked "Exhibit 5," and state whether that invention has any mechanical connection with a sewing-machine?

A. It has not, except with the table.

C. Q. 129. State whether that invention has any relation with the needle of a sewing-machine?

315 A. It has not.

C. Q. 130. State whether any means are provided to render it automatic in its operation.

A. No.

C. Q. 131. From your knowledge of the art, was the Wheeler invention ever used for tuck-creasing; and, if so, when?

A. I never saw it used, except as I experimented with it in the year 1872.

C. Q. 132. Examine the letters-patent, or a certified copy thereof, issued to him February 14th, 1860, and state whether the specification thereof in any manner refers to or provides for making a crease in cloth?

A. Yes, where it speaks of marking tuck-folds. It also speaks of measuring and marking tuck-folds and of making pricks or marks on cloth or folds by pressing down on a point. It says the material is marked very rapidly, enabling the operator to sew tucks, folds, and plaits evenly, straight, and rapidly. It provides a point and a soft metallic socket for that purpose.

C. Q. 133. State whether from the language you have just quoted you understand that Wheeler contemplated making a continuous crease in cloth.

A. The language quoted dosen't indicate that he did or didn't.

C. Q. 134. Where did you see the device of a board with a longitudinal groove and an ivory marker or paper-cutter?

A. In Howard, Steuben County, New York.

C. Q. 135. Who made it?

A. I don't know who did make the first one. The school-boys brought one or two into school; the first one was there when I went into school.

C. Q. 136. What were they brought into school for?

A. For folding foolscap paper to form writing-books.

C. Q. 137. Do you know whether they were ever manufactured for tuck-creasing purposes?

A. They were manufactured simply for folding purposes.

316 C. Q. 137*a*. Is there any difference in principle or in essential elements between Exhibit 18 and Exhibit 2 X?

A. I think not. There may be in 18 something to be gained in manipulating the cloth.

Cross-examination of the witness in case No. 2:

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
ENOCH S. YENTZER AND WALTER SCATES.

C. Q. 138. State what is the essential principle involved in the 6th claim of the Rose patent, re-issued December 1st, 1868.

A. The apparent principle is automatically marking tucks by a pinching process, performed by a lever-and-spring mechanism, which is to be put in motion by the power of a vibrating needle-arm; and, further, in the unity of adjustment of the upper and lower parts on the bed of the machine to or from the needle.

C. Q. 139. Do the upper and under parts of the Rose invention always maintain the same relative position to themselves, and, when in use, with the needle of a sewing-machine?

A. The upper parts change their relative positions when in use, but unless they were out of order they would maintain their relative positions to the lower part and would also maintain one position relative to the needle, unless together adjusted to or from it.

C. Q. 140. What essential elements are necessary in a tuck-marker or creaser to embody that principle?

A. To embody that precise principle all the mechanisms as there shown in the Rose patent must be employed.

C. Q. 141. State what you mean by unity of adjustment.

317 A. I use the words "unity of adjustment" in contradistinction to a compound or double adjustment, or, to make it plainer, several mechanisms are, by a single movement, moved precisely the same distance.

C. Q. 142. In tuck-creasers generally what several mechanisms are essential to embody the principle of unity of adjustment?

A. An upper marking device rigidly attached to a lower marking device, when the latter is adjustable on the bed-plate of the machine, or on other part of the machine.

C. Q. 143. Do you find these elements embodied in the Rose invention?

A. I do not, all of them, as described in my last answer, as the bed-plate in the Rose patent has no marker; but this does not prevent the Rose model from having a unity of adjustment.

C. Q. 144. Then the under marker is not an essential element in embodying the principle of the unity of adjustment?

A. It is necessary in some tuck-markers, but it is not in the Rose patent, and might not be in others.

C. Q. 145. Does not the extension-plate, *m*, act conjointly with the pinching-jaws in making the crease?

A. It is intended so to act, as I see by the specification.

C. Q. 146. Are not the jaws in the Rose invention of unequal length, and arranged so as to strike, respectively, close to, and on both sides of, the edge of that extension-plate, *m*?

A. The outer jaw strikes the plate *m*; the inner jaw descends closely to the edge of the plate, and in model 10 is a little longer than outer jaw; but I don't note this distinction in length of the jaws in the patent.

C. Q. 147. In your opinion, in this arrangement, as shown in model 10, does not the edge of that extension-plate, *m*, assist in the creasing action?

A. Model 10 is inoperative, and I cannot say fully. It may. I think it is intended to.

318 C. Q. 148. In the defendant's devices, Exhibits Nos. 2 X and 3 Z, do you not find the elements necessary to embody the principle of the unity of adjustment?

A. No. I find in them a unity of movement, not a unity of adjustment.

Adj'd till 15th, at 10 a. m.

Examination continued on 15th, as follows:

C. Q. 149. State what necessary element to the unity of adjustment is wanting in the models last referred to.

A. Some means to fasten the movable bed-plate independent of its fixed bed-plate.

C. Q. 150. Look at your answer to c. q. 142, and state whether you have there stated that such means is a necessary element to embody the said principle?

A. I did not. I contemplated the slot and set-screw, as in model 10.

C. Q. 151. Does not the bed-plate in Exhibits Nos. 2 X and 3 Z slide in a slot in the lower jaw of the flat gauge-plate described in the Yentzer patent?

A. One part of the bed-plate in said model slides in groove in what I have termed the other part of the bed-plate, and clamped to it by a set-screw.

C. Q. 152. Does what you term the other part of the bed-plate form any part of the tuck-creaser proper?

A. No.

C. Q. 153. Do not the tuck-creasers proper, in models Nos. 2 X and 3 Z, embody the principle of unity of adjustment?

A. Independent of the bed-plates, no; but they embody a unity of movement.

C. Q. 154. Is unity of adjustment obtained when means of fastening the bed-plate at any and all desired points is provided?

A. Yes.

C. Q. 155. Does the precise mechanism of such means affect the result, i. e., unity of adjustment?

A. Yes, in models No. 2 X and 3 Z, but how far such means
319 might be varied and retain the same end, I am not able at present to say. Any mechanism which would properly hold the movable bed-plates to the stationary bed-plate would not produce any different effect as regards the unity of adjustment.

C. Q. 156. Would any mechanism which could properly hold the bed-plate of the tucker proper to the bed-plate of the sewing-machine, or to any other part of said machine at any and all desired points, produce any different effect as regards the unity of adjustment?

A. I think not.

C. Q. 157. Do the upper and under parts of the tucker proper in Exhibits Nos. 2 X and 3 Z always maintain the same relative position with themselves, and when in use together maintain the same relations with the needle?

A. Yes; relative to themselves. To the second clause of interrogatory I say yes; adjustable relations.

C. Q. 157*a*. Is there any difference, so far as unity of adjustment is concerned, between Exhibit 18 and Exhibit 2 X?

A. No; not in the matter of notch and blade.

C. Q. 157*b*. Do you find in Exhibit 18 the elements previously stated by you as essential in embodying the principle of the unity of adjustment?

A. If the attorney means the unity of the notch and blade, I say yes, but if he means the unity of the whole, I say no; for there is no movement of the bed-plate.

C. Q. 157*c*. Is there any difference in the latter respect between Exhibit 18 and Exhibit 2 X?

A. No.

Cross-examination in 2d case concluded.

320 The cross-examination of G. L. Chapin in the case of—

ISAAC W. BARNUM AND HENRY W. FULLER
vs.
HERMAN B. GOODRICH

was commenced, as follows:

C. Q. 158. Are you thoroughly familiar with the invention described in re-issued letters-patent granted to Henry W. Fuller, as assignee of Israel M. Rose, Dec. 1, 1868?

A. I think I am.

C. Q. 159. State what are the essential elements of that invention.

A. Serrated pinching-jaws, operated in connection with adjustable slotted bed-plates, supporting an under plate, *m*, and a spring communicating motion to the operating jaw, when a pivoted lever is operated from some power in a machine. These are the mechanical elements the abstract principles of which would appear to be the pinching of cloth to form a crease as it passed over the bed-plate of a machine, said tuck to be of different widths. I don't mean to say, however, that this principle could be made available by the elements enumerated.

C. Q. 160. What is the office or function of those jaws?

A. As I have just stated, to pinch the cloth to form a crease or ridge on which cloth is to be folded. I might now add that a small portion of the cloth would be somewhat folded or doubled provided the jaws would operate.

C. Q. 161. Is not the crease or fold made in the Rose invention by compressing the cloth in a doubled condition between opposing surfaces?

A. I do not understand from the patent that this is the case.

321 The patent speaks of seizing the fabric and compressing it tightly, but just as to how the pinching or creasing is to be done the patent does not describe. A great deal is said about the jaws, but their precise construction, relative length, and their precise operation on or with the plate *m* are not set forth clearly.

C. Q. 162. Do you understand the principle of the creasing action in the Rose invention?

A. Not from the patent, but from the patent and a knowledge of mechanics and experiments, and seeing the model, I think I understand the principle involved in what the attorney terms creasing action.

C. Q. 163. From your understanding so derived, state whether the crease or fold made by the Rose invention is not so made by compressing the cloth in a doubled condition between opposing surfaces.

A. If such crease could be made there would be a very short fold if the cloth were pinched between the jaws by compression in a doubled condition between opposing surfaces.

C. Q. 164. So far as the creasing action is concerned, or so far as pinching a fold or crease in cloth is concerned, would it make any difference in what position the opposing surfaces were placed, provided they did come together?

A. Yes; the opposing surfaces might come together and not gather any cloth.

C. Q. 165. If the cloth by any suitable means was placed between or fed between the two opposing surfaces, then, under the condition mentioned in preceding question, would it make any difference?

A. Yes; a single thickness of cloth might be placed between the jaws; but if a double thickness of cloth were placed between the jaws I should say no, providing the surface pressed the cloth at the point of doubling.

C. Q. 166. State what is the function of the hinge-lever.

A. To communicate motion to a spring which operates the movable jaw and to give a reciprocating motion to both jaws, and as a result operates the spring of the inner jaw.

322 C. Q. 167. State the function of the spring-branch H.

A. It operates the movable jaw and through its attachment operates a spring-lever jaw, and might prevent the parts from being broken, if the power applied should move the lever down too far.

C. Q. 168. When the jaws in the Rose invention have reached the cloth and the creasing action has commenced, for all practical purposes is not the closing of the jaws accomplished by the movement of the outer jaw alone?

A. The whole movement, practically, is made by the outer jaw.

Adjournment until the 16th.

Continuation of examination on July 16th, 1873:

C. Q. 169. State the functions of the serrations, or serrated edges, of the pinching-jaws.

A. It is that the protuberances between the interstices may project a little into the cloth to enable the jaws to get a firmer hold upon it in their downward movement.

C. Q. 170. Is it essential in order to seize the cloth that those edges should be serrated?

A. I think it is. I do not believe that the jaws would get a sufficient hold upon the cloth unless they were serrated or toothed; unless they were sharp enough to get a firm hold upon the cloth; but in the latter case they would cut or injure the cloth, I think.

C. Q. 171. Are there not well-known appliances known to mechanics by which motion could be communicated to the outer jaw as desired, which could be substituted for that purpose for spring-branch H?

A. No; not without reconstruction, and perhaps invention—I am not sure as to invention.

C. Q. 172. State what advance, if any, was made by Rose in his invention in the state of the art at the time of his invention.

A. He provided a complete unity of adjustment, (to or from the
323 needle,) as a whole, and substituted pinching-jaws for notch and point. I have not considered the Wheeler patent in this answer.

C. Q. 173. State what is the essential principle embodied in defendant's machine, marked "Exhibit 13."

A. Laying cloth over a suitable form as it passes over the bed of the machine and forming a crease by a series of concussions.

C. Q. 174. What are the essential elements of that device?

A. A form, a longitudinal gatherer, and spring-lever hammer, with a suitable bed-plate to support the parts and means to determine the width of tuck.

C. Q. 175. Is the *guage* any part or essential element in the tuck-creaser proper?

A. No; not in the absolute means of creasing.

C. Q. 176. What do you mean by the longitudinal gatherer?

A. I think the patent describes it as a "sliding folder."

C. Q. 177. What do you mean by the "form?"

A. The bed on which the hammer strikes, or the part which resists the blow of the hammer.

C. Q. 178. What do you mean by the "spring-lever hammer?"

A. I mean a spring to relieve the concussion of the blow of the hammer.

C. Q. 179. What is the function of the hammer, and what you term the "form?"

A. The hammer is to make a sharp edge on a narrow fold. The form is to support the cloth and resist the concussion of the blow.

C. Q. 180. Is not the crease or short fold made in this device by compressing the cloth in a doubled condition between opposing surfaces?

A. In one sense this might be so. But there is such a wide difference between the meaning of the words concussion and compression, and as the operation is one of concussion, I should decline to say yes. As to doubling in its broad sense, I say yes.

C. Q. 181. Is not compression a necessary consequence of concussion?

324 A. Yes; it is a result of concussion in some cases, but not in all. There may be concussion without any practical compression. In creasing there is compression, otherwise no crease could be formed.

C. Q. 182. Is not concussion itself a necessary result from the contact of two bodies moving at a greater or less speed toward each other?

A. No; unless there is a rebound to a greater or less extent.

C. Q. 183. Is not the concussion an atmospheric phenomenon incident to the meeting of the opposing surfaces, by which the crease is formed?

A. I should rather say it was a result, than phenomenon.

C. Q. 184. Is it not true, then, that whether concussion is produced or not that the crease or fold is made by compressing the cloth in a doubled condition between opposing surfaces?

A. I have already stated that compression was the result of such a blow as would produce concussion. I now say that the crease is formed primarily with such blows as would produce concussion; secondly, by compression as a result. There might be compression without concussion.

C. Q. 185. Please define the meaning of jaws as understood in mechanics.

A. Two opposing surfaces, one of which must be a lever.

C. Q. 186. Do you find in the Rose invention jaws so defined?

A. I do.

C. Q. 187. Do you find in Exhibit 13 jaws so defined?

A. No.

C. Q. 188. Does not the lever carrying the upper opposing surface constitute a lever-jaw; and, if not, why not?

A. No; it is a spring-hammer.

C. Q. 189. Does the fact that a spring is introduced into a lever-jaw destroy its character as a lever-jaw?

325 A. It might or it might not. I couldn't tell till I should see such device as you speak of.

C. Q. 190. Why does the interposition of the spring in device No. 13 deprive the lever-arm, and its opposing surface, of its character as a lever-jaw?

A. If it were a lever-jaw without the spring, it would be with it.

C. Q. 191. What element is wanting in the lever-arm of the opposing surface in Exhibit 13 to constitute it a lever-jaw?

A. It lacks proper mechanism for pinching, in place of a hammer for pounding. Jaws, in mechanism, are not intended to be operated on by reciprocating mechanism, to make such blows as would produce concussion, but hammers, dies, swages, stamps, and punches are. This distinction is general in primary movements. Jaws are intended to pinch, not pound.

C. Q. 192. Would an ordinary vice, when placed in a horizontal position, and the lever-jaw operated rapidly, produce a hammering action?

A. The word rapidly is a relative term. I could not answer definitely on that account.

C. Q. 193. If operated as rapidly as the lever-arm in Exhibit 13 is operated when in use, would it produce a hammering action?

A. Yes; if the jaws come in contact and produce concussions.

C. Q. 194. Would not the jaws of the vice, in such last case, compress any material which might be placed between them?

A. Yes, as a result, but not as a primary action.

C. Q. 195. What difference, then, is there, substantially, in principle, between the lever-jaw of the vice spoken of, and the lever-arm carrying the opposing surface in Exhibit 13?

A. None, inasmuch as the vice spoken of should be properly termed a hammer, if made to operate as the attorney describes it.

Adjournment to 17th inst.

326 Examination continued this 17th July, 1873.

C. Q. 196. Would the vice spoken of still be jaws, as defined by you?

A. Yes; if no change in construction were made to give the rapid motion.

C. Q. 197. Do not the opposing surfaces in Exhibit 13 open and close at intervals, compress the cloth when the feed is inoperative, and release it when the feed operates?

A. The hammer in No. 13 forms the crease when the feed is at rest, and moves away from the cloth when the feed is in operation.

C. Q. 198. Does the hammer alone make the crease, or is it assisted by the under opposing surface?

A. No; it operates in combination with the lower plate and sliding folder.

C. Q. 199. After the sliding folder has performed its office, does not the form assist the creasing action?

A. Yes.

C. Q. 200. Is there any substantial difference in the method of making the crease or short fold, so far as the creasing action alone is concerned, between the Rose jaws and the hammer and form in Exhibit 13?

A. Yes. In model 13 no creasing can be done without the interposition of the sliding folder or its equivalent, while in the Rose model the two opposing surfaces are intended to both gather and pinch the edge of the gather or short fold, so as to crease the cloth.

C. Q. 201. After the cloth is in position between the opposing surfaces in both models, is there any substantial difference in the method of making the crease or fold?

A. I should think not; but note the following: In model 13 the rendering the flexibility of cloth temporarily inactive, so that the cloth will stay creased, is done as a power by a light hammer moving a considerable distance, and does its work partly by momentum, which is attained by a lever of the third order, when the needle-arm is in operation, while in the Rose patent momentum is not at all necessary independent of speed, the movable jaw being a lever of the first order.

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C. Q. 202. Do you not find, in Exhibit 13, a hinged or pivoted lever, whose function is to communicate motion to the upper part of the device No. 13?

A. If by the upper part of the device is meant what I term hammer, I should say yes; a lever of the third order.

C. Q. 203. Do you find in Exhibit 13 unity of adjustment?

A. Yes; also a compound adjustment of seamer.

C. Q. 204. Is that unity of adjustment obtained by means of a slot in the bed-plate, as in the Rose invention?

A. Yes; by a similar slot.

C. Q. 204*a*. Examine model No. 14, and state whether there is any substantial difference in principle and mode of operation between that and model No. 13, except in the means provided for bringing the cloth between the opposing surfaces. If so, what?

A. I can't see any substantial difference, except that noted by the attorney, unless the blade in 14 would perform some function over and above the sliding folder in 13. It operates somewhat differently upon the cloth, but the result is the same.

C. Q. 205. Is that difference such as to affect the principle of the creasing action itself?

A. I think not.

C. Q. 206. Do you find in model 14, with the exception of folder noted, the essential elements of Exhibit 13, or substantial equivalents?

A. Yes; except the sliding folder.

C. Q. 207. Look at models 11, 12, and 15, and state if you do not find in them all the same method substantially, so far as the creasing action is concerned, after the cloth is in position, as in the Rose invention.

A. Assuming that cloth in a doubled condition is properly placed between the nippers in model 11, the creasing would then be done by compression, the same as in the Rose. On the same assumption this would be the case in model 15, and in both cases by push bar, or bars, rather than a lever-jaw. In model 12 a different principle is involved, a forming-blade being interposed between the push-bars.

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C. Q. 208. Please state if, in all those models last mentioned, *if* the creasing action is not obtained by a lever-jaw acting in conjunction with a resisting surface.

A. No; but by push-bars.

C. Q. 209. Look at your answer to question 24 of the direct examination, and state why the Rose model would be of no particular value to attain different width of tucks.

A. Because not provided with a gauge.

(Here the cross-examination of said Geo. L. Chapin closed.)

Whereupon said witness Chapin was re-examined by the defendants, as follows:

Q. 210. Examine your answers numbered 37 to 61, inclusive, of the cross-examination, and state, if you please, if the specifications in the Fuller patent point out or give any intelligible direction how or in what manner the upper markers *i* and *k*, attached to the spring-arm, are to be or can be directly attached to the bar *e*, or needle-arm, or either of them, with or without a spring interposed.

A. No.

Q. 211. Do you know, from your knowledge of mechanics, or could you from such knowledge make that change in this part of Fuller's mechanism without reconstruction or invention?

A. No.

Q. 212. Does the specification of the Fuller patent point out any manner or mode for the permanent attachment of the lower markers to the bed-plate of the tucker; and, if so, where are they to be located upon or fixed upon it?

A. No means are pointed out, and the point of location is not given.

329 Q. 213. State if the specification of the Fuller patent, in reference to the swinging guide, presents any new patentable feature, principle, or mechanism not then known to the art, and in use on sewing-machines prior to the date of that patent.

A. I had not seen such guide used in connection with a tuck-creaser, but swinging guides were in use, in contradistinction to sliding guides, on the bed-plates of sewing-machines prior to that date. As a guide per se, the ones I saw would be equivalents for this one.

Q. 214. Examine cross-questions 120 to 125, inclusive, and your answers thereto, and please state if the parts of said exhibits referred to in said questions and answers are not essentially different in their forms, construction, principle, mode of operation, from the parts in Fuller model No. 4, carrying the markers.

A. Yes, except wherein I have admitted or stated similarities in detail in these and other answers regarding the same parts.

Q. 215. State, if you please, in reference to question 133, and your answer thereto, whether, in your opinion, a tucker device made according to the description in the specification of the Wheeler patent, and the model Exhibit No. 5, would not, in practical use, make a crease, or line equivalent to a crease, for the folding of cloth upon it for the purpose of tucking.

A. Yes; the marks might be made near enough together for that purpose, but the process would be slow.

(Close of redirect examination in case 1 of the witness Geo. L. Chapin.)

Redirect examination of the witness Chapin in the 2d case:

Q. 216. Examine question 139 and questions 149 to 157, inclusive, and your answers, and state if the mechanism of Exhibits 2 X, 3 Z, for the adjustment of the position of the markers to the needle, with the

330 gauge for the width of the tuck, is not essentially different from the adjusting mechanism of model No. 10?

A. Yes, as to model 2 X, 3 Z, except what exceptions there are in said answers given.

(Close of redirect examination in the 2d case.)

Redirect examination of the witness Geo. L. Chapin in the 2d case:

Q. 217. Examine questions 164 to 167 and the answers, and 173 and

answer, and questions from 178 to 189, inclusive, and from 191 to 202, inclusive, and your answers thereto, and state if the forms of the markers and their mode of operation, in Exhibits Nos. 13 and 14, are not constructed upon the principle in a common blacksmith's hammer and anvil, the hammer or upper marker being operated by the needle-bar in the former, instead of the arm of the blacksmith in the latter; and whether, if so, the form thereof, the mode of operating the same, and the mechanical principles involved, are not essentially different from those in the Rose model No. 10.

A. I have already stated that the creasing was done on the principle of hammering instead of pinching, and this statement is considered yea as to the first clause of this question. The mechanism, as a whole, is different. As to detail of construction, the attorney is referred to the answers in question.

Q. 218. Examine question and answer 203, and state if you find the same substantial unity of adjustment of the markers as to the width of tuck in the Wheeler patent and model No. 5, as in the Rose model No. 10?

(Objection as not proper cross-examination.)

A. Yes.

(Signed) GEORGE L. CHAPIN.

Deposition of EDWIN J. CUBLEY, for the defendants, on the three foregoing causes.

Defendants introduced the affidavits of said Cubley, filed in said causes September 2d, 1872.

331 Witness being asked if he agreed with the witness Chapin in the statements made and opinions expressed by him on his direct, cross, and redirect examination respectively, testified as follows:

Direct examination in 1st case:

Ans. to Q. 2. I have examined the several matters referred to in the interrogatory, and as to the facts therein stated by said Chapin, they are true, with the exception that I have not seen the device mentioned by him for making scythes, and I do not know of my own knowledge that such devices, mentioned in answer to 16th and 17th questions, were used longer than sixteen or seventeen years ago; and as to his opinions, I believe them to be correct in every particular.

Cross-examination:

Ans. to X-ques. I have examined the questions and answers, and patents, models, and tuck-markers referred to, and I agree with him wholly with the following exceptions: 1st, in answer to question 26, I first saw a tuck-marker in 1869, made by Henry C. Goodrich; 2d, in relation to answers to questions 25 and 28, I never saw any in the Patent-Office; 3d, in relation to question 97, I think that all machines are provided with gauges; 4th, in relation to question 98, the first gauge I ever saw in combination with a tuck-creaser was in '68, on an H. C. Goodrich tucker, somewhat similar to that on Exhibit No. 9; 5th, in relation to question 99, I answer, I don't know when a gauge was first combined with a tuck-creaser; 6th, in respect to question 100, I don't think there is anything in the Fuller patent or model that could constituted a gauge or cloth-guide; 7th, in answer to question 106, I do not know of a guide combined to a tuck-marker prior to 1869; I have known it separate from a tuck-marker as ordinarily used on a sewing-machine; 8th, as to question 131, I never saw the Wheeler invention used for tuck-creas-

332 ing; 9th, in regard to questions 134 to 137, inclusive, I never saw a grooved board used to mark paper or cloth. I should have made this exception on my direct examination.

Direct examination in 2d case:

Ans. to ques. I have examined the question and answer, and patents, and models, and tuck-markers referred to, and I agree with him wholly with one exception; that is, where he refers to the former affidavits, which I have not examined, and express no opinion upon them.

Cross-examination:

Ans. to cross-ques. I have examined the several matters referred to in the several cross-interrogatories, and the answers thereto, and as to the facts therein stated by the said Chapin, they are true; and as to his opinions therein expressed, I believe them to be correct in every particular.

Examination adjourned to 18th.

Examination continued on 18th, as follows:

Direct examination by defendants in the 3d case:

Ans. to ques. I have examined the questions and answers named, and the patents, models, and tuck-markers referred to, and I agree with him wholly with the exception of the reference to the former affidavits filed in this case, which affidavits I have not examined, and express no opinion upon them; and with the exception of having used the Rose tuck-marker, which I have never tried, and never saw it tried.

Cross-examination:

Ans. to 1st cross-ques. I have examined the questions and answers, and patents, models, and tuck-markers referred to, and I agree with said Chapin wholly, with the following exception: In answer to question 185, I consider jaws opposing surfaces used for compression, whether one of them is a lever or not.

C. Q. 2. Do you find in defendant's models 13 and 14 jaws, as defined by you?

333 A. In 13, I do; in 14, no. The sliding folder in 13 I consider a jaw, which holds the work in place while the hammer acts upon it.

C. Q. 3. Do you not find that in models 13 and 14, that the faces of the hammers, as you term them, and the surfaces of the plates or forms on which they strike, are opposing surfaces, used for compression?

A. Not properly compression, but more properly concussion.

C. Q. 4. In use do they not compress the cloth in a doubled condition between opposing surfaces?

A. Yes; that is the result of the concussion. On a folded edge or doubled piece of cloth, concussion and compression amount to substantially the same thing.

C. Q. 5. Then is there any difference in the creasing action, in principle, between the opposing surfaces of Rose invention and those in defendant's models 13 and 14?

A. As to the result, there is no difference; as to the mode of obtaining that result, there is a difference. The principle is the same in both, so far as the mere action of pinching or compressing the folded goods is concerned.

(Close of cross-examination of Cubley.)

Redirect examination of Cubley:

Red. Q. 1. Look upon interrogatories 1 to 9 inclusive, put to George L. Chapin by the defendants on his redirect examination, and his answers thereto, and the patents, models, and tuckers therein referred to, and state whether you concur with the said Chapin in his opinions therein expressed; and, if not, state particularly wherein you differ.

A. I do.

Red. Q. 2. In the last question of the cross-examination in the 3d case, and in your answer thereto, state if you meant, or wish to be understood, by the identity of principle of creasing by pinching and compressing, to say or express the opinion that there was identity in the principles involved in any or all mechanisms, and their mode of
334 action and operation, in attaining the result of forming a crease; or did you merely mean to say and be understood that you used the word principle as synonymous with result?

A. I mean that I used the word principle as synonymous with result. I would say that compressing, in any way, folded goods, to form a crease, is a principle. There is a very material difference in the principles of construction and mode of operation of the two devices referred to in the former question.

(Signed) EDWIN J. CUBLEY.

Defendants then introduced the affidavits of NORMAN H. SHERBURNE, filed in the three foregoing cases, Sept. 2, 1872.

Said Sherburne was then sworn, and testified as follows:

Having been asked if he agreed with the witness Chapin in the statements made and opinions expressed by him on his direct, cross, and redirect examination respectively, testified as follows:

Ans. to direct ques. I have examined the several matters referred to in the interrogatories, and as to the matters of fact stated in the answers of said Chapin, they are true to the best of my knowledge and belief, with the exceptions following: 1st, in answer to Q.16, I say that I have no personal knowledge of the use of the notch and blade when used in conjunction, for forming a mark on cloth preparatory to folding the same, prior to the year 1860; nor have I any personal knowledge of the use of a point and socket for that purpose prior to that date, but a notch and blade, and the point and socket, have, to my personal knowledge, been used as and for the purpose stated by said Chapin, prior to the year 1857. In reference to the opinions therein expressed, I concur with the said Chapin.

335 Cross-examination:

Ans. to C. Q. 1. I have examined the questions and answers, patents, models, and tuck-markers referred to, and I agree with Chapin wholly, with the following exceptions: To question No. 26, I say that I first saw a tuck-creaser in the year 1868. To question No. 27, I say that I do not know. To question No. 28, I say yes. To question No. 30, I say I have, since 1868; to No. 33, I say yes; to No. 34, I say yes; to No. 100, I say I do not see as any gauge is in any way shown in the Fuller patent, nor do I see as any part of the said device can perform the functions of a gauge; to No. 106, I say that a gauge for guiding the edge of the cloth in a line parallel with the previously-formed fold or line of stitch is seen in the patent to C. D. Wheeler of Feb. 14th, 1860, numbered 27179. The bracket by which the marking device is secured in adjustment in the Wheeler patent performs that function. To ques-

tions Nos. 134 to 137, I say that I have no knowledge as to those questions as answered by Mr. Chapin.

C. Q. 2. Does the gauge in the Wheeler patent determine the width of tuck?

A. It does not determine the distance of the line of stitch from the edge of the fold.

C. Q. 3. Is the width of tuck in the Wheeler patent determined by the movement of the markers?

A. No; it does not, proper; but its location and distance from the edge of the previously-formed fold and line of stitch is formed or obtained by the adjustment of the markers.

C. Q. 4. When the tuck-creaser proper, Exhibit No. 3 Z, is detached from the holding device, does the spring-bar form an essential element in the creasing device?

A. As much so as any part, as the tucker proper would not perform any function without being attached or secured within a holding mechanism; but when the tucker proper is secured in its holding mechanism, the spring is an essential element to insure a uniform width
336 of fold.

C. Q. 5. What function does it perform?

A. It acts to hold the fold and the cloth proper smoothly upon the lower marker or cloth-plate of the machine.

C. Q. 6. Do you find any such device in the Fuller and Rose invention?

A. I do not.

C. Q. 7. Would Exhibit 3 Z crease for a tuck without it?

A. It would.

C. Q. 8. Then is it an essential element of the tuck-creaser proper?

A. It is, when in use.

C. Q. 9. Is it any more an essential element than the seamer? If so, why?

A. It is not, when the seamer is made to perform the function of a smoother.

C. Q. 10. As you find them in Exhibit 3 Z, is the spring-bar any more an essential feature of the tucker than the seamer?

A. It is, in the forming of a crease; for seamers are not generally used for that purpose; but they may be so arranged as to perform the functions of a smoother, and I have seen them so arranged in the Armstrong patent.

C. Q. 11. State whether the smoother assists in the creasing action; and, if so, what function does it perform?

A. It does, to a certain extent, aid in insuring the forming of the crease on which a line parallel with the edge of the previously-formed fold in line of stitch, as it acts to prevent the cloth from passing over the guiding edge of the seamer, or gauge proper.

C. Q. 12. Would not the crease be made parallel to the line of stitch with the smoother removed?

A. It could be made so, but the cloth would have to be secured in position more or less by the hand of the operator, or some other device as a smoother.

337 C. Q. 13. What do you understand by an essential element?

A. That which ensures the position or uniform action.

Redirect examination in 1st case:

Redir. Q. 1. State whether the upper and lower parts and markers in the Wheeler patent could not be substituted for the upper and under

parts and markers in the Yentzer patent, as shown in the models Exhibit 1 and tuck-markers Exhibits 2 X, 3 Z, and 18.

A. The upper and lower parts carrying the markers and the markers themselves, in the Wheeler patent, can be substituted for the parts carrying the markers, and the markers in the Yentzer device.

Redir. Q. 2. And, if you answer the last question in the affirmative, state whether the smoothing-spring in the Yentzer models and tuckers does not secure more perfectly a uniform distance on the cloth between the markers or line of crease and the gauge.

A. It does, as it prevents the cloth from becoming wrinkled.

Recross-examination:

Rec. Q. 1. In substituting the parts in the Wheeler device for the same parts in the Yentzer device would it not be necessary to provide some means to attach the bed-plate of the Wheeler to the sewing-machine?

A. The parts in the Wheeler device which carry the upper and lower markers can be attached to the present bed-plate in the Yentzer device.

Rec. Q. 2. Would not some means have to be provided to connect the upper part of the Wheeler device with some moving part of the machine?

A. No; it may be done by the slot in the upper marker-arm, as in the Yentzer device.

Rec. Q. 3. Do you find any such slot in the Wheeler device?

A. No.

338 Rec. Q. 4. Would it be necessary to provide some means to take up the surplus motion of the needle-arm?

A. No; it would not. The arm carrying the upper marker device would only require to be made slightly thinner and slightly elevated at the end carrying the marker.

2d redirect examination by defendants:

2d Redir. 1. Would it require invention or reconstruction to give greater elasticity to the upper spring carrying the marker in Wheeler device so as to relieve the surplus motion of the needle-arm?

A. It would not require invention to make the change or reconstruction required.

2d Redir. Q. 2. Does it require any invention or reconstruction to put a slot for the needle to pass through the upper spring-arm?

A. It does require reconstruction to a certain extent to form the slot, but it does not require invention.

2d Redir. Q. 3. Could not any ordinary mechanic make the proper change?

A. He could.

Direct examination in the 2d case:

Ans. to Q. 1. I have examined the question and answer, patents, models, and tuck-markers referred to, and I agree with him wholly, except that I have not read the affidavits referred to by Mr. Chapin, and therefore I have no knowledge of that portion of the answer, but in so much of the answer as stated to the present interrogatory by Mr. Chapin he is correct.

Q. 2. State how you would construe the several clauses of claim 6 in the Rose patent.

A. In the 6th clause of the claim all the parts which are mentioned in the specification must be taken into consideration, and used in connection, in a tuck-marker having its upper and lower parts adjustable as to its relation with the needle of a sewing-machine.

339 Q. 3. With that construction or understanding on your part of the claims of the patent, state whether that principle and the principle involved in so much of the parts of Exhibits 2 X, 3 Z, and 18 as relates to the adjustment of the markers toward or from the needle or line of stitch were not known to the art and embodied in mechanism for that purpose at the time of the issuing of the Rose patent, September 22, 1863.

A. They were.

Q. 4. State whether the width and location of tuck was not governed by the adjustment of the markers as a whole, and embodied in the mechanism of No. 15 of the Wheeler patent.

A. The location of the crease and its distance from the edge of the previously-formed tuck is produced in the Wheeler device by the adjustment of the markers as a whole; or, in other words, by moving those portions which form the mark toward or from the previously-formed line of stitch, or toward or from the parallel sides of the gauge against which the edge of the first-formed fold passes, as in the Yentzer device.

Q. 5. State whether the same principle, substantially, is not embodied in the mechanism and adjustment of it in model No. 10, as to the needle or line of stitch, with the exception of the gauge formed by the bracket as a guide.

A. It is; that is, so much of it as relates to the adjustment of the markers toward or from the edge of the previously-formed fold or line of stitch.

Adjournment from 18th to 19th.

Cross-examination:

Ans. to C. Q. 1. I have examined the several matters referred to in the several cross-interrogatories and the answers thereto, and as to the facts therein stated by the said Chapin they are true, and as to his opinions therein expressed I believe them to be correct in every particular.

C. Q. 2. Examine your answer to question 3 of your direct-examination, and state where the principle therein referred to was embodied in mechanism as therein stated.

340 A. It is in the arm carrying the upper marking device and the plate holding the lower marking device, both being connected and capable of being moved together at one and the same time, and by one operation, toward or from the line of stitch or edge of fold previously made in the Wheeler patent.

C. Q. 3. Please state whether in the Wheeler patent there is any adjustment toward or from the needle.

A. There is no adjustment from the needle, but there is from the previously-formed line of stitch in the Wheeler.

Direct examination of Sherburne in the 3d case:

Ans. to Ques. 1. I have examined the questions and answers named, and the patents, models, and tuck-markers referred to, and I agree with him wholly, except in answer to question 22. I say that the several mechanical elements embodied in the 6th clause of claim of the Rose patent are substantially different from models 13 and 14. The elements in the 8th clause of the Rose patent are together adjustable; that is to say, the upper and lower portions of the markers are capable of being moved toward or from the needle or line of stitch at one and the same time and by one and the same operation, but with such adjustment the entire mechanism is moved.

In the models 13 and 14 there is no such combination of parts shown as set forth in the 8th clause of claim in the Rose patent, but the arm carrying the upper marking device and the plate holding the lower marking device in models 13 and 14 are connected, and are capable of being moved toward or from the needle or line of stitch at one and the same time and by one and the same operation, but with such adjustment the entire mechanism is not moved as in the Rose patent; therefore models 13 and 14 are substantially different from the parts embodied in the clauses of claims in the Rose patent.

Q. 2. State how you would construe the several clauses of claim 6 in the Rose patent?

341 A. In the 6th clause of the claim all the parts which are mentioned in the specification must be taken into consideration and used in connection in a tuck-marker having its upper and lower parts adjustable as to its relation with the needle of a sewing-machine.

Q. 3. With that construction or understanding on your part of the claims of the patent, state whether that principle and the principle involved in so much of the parts of Exhibits 13 and 14 as relates to the adjustment of the markers toward or from the needle or line of stitch were not known to the arts and embodied in mechanism for that purpose at the time of the issuing of the Rose patent, Sept. 22, 1863?

A. They were.

Q. 4. State whether the width and location of tuck was not governed by the adjustment of the markers as a whole, and embodied in the mechanism of model No. 15 of the Wheeler patent.

A. The location of the crease and its distance from the edge of the previously-formed tuck is produced in the Wheeler device by the adjustment of the markers as a whole; or, in other words, by moving those portions which form the mark toward or from the previously-formed line of stitch, or toward or from the parallel sides of the gauge against which the edge of the first-formed fold passes, as in the Yentzer device.

Q. 5. State whether the same principle, substantially, is not embodied in the mechanism and adjustment of it in model No. 18, as to the needle or line of stitch, with the exception of the gauge formed by the bracket as a guide.

A. It is; that is, so much of it as relates to the adjustment of the markers toward or from the edge of the previously-formed fold or line of stitch.

Cross-examination in 3d case:

Ans. to C. Q. I have examined the questions and answers, and patents, models, and tuck-markers referred to, and I agree with the said Chapin wholly, with the exception that as to question 209 I say that I

342 have examined Mr. Chapin's answer to question No. 24, and find the same correct; and in answer to question 209 I would say that the Rose patent would be inoperative without a gauge, and would not, for a further reason, be of any practical value, to wit, the arrangement of the stationary jaw is such as to draw the cloth tightly over the tongue, thus preventing the movable jaw from seizing the same.

Redirect examination by defendants in all the cases:

Red. Q. 1. Look upon interrogatories 1 to 9 inclusive, put to George L. Chapin by the defendants on his redirect examination, and his answers thereto, and the patents, models, and tuckers therein referred

to, and state whether you concur with the said Chapin in his opinions therein expressed; and if not, state particularly wherein you differ.

A. I do concur.

(Signed) NORMAN H. SHERBURNE.

Ex. No. 19.—J. O.

WASHINGTON, D. C., *Oct.* 12, 1868.

PATENT-OFFICE LETTER OF REJECTION.

H. W. FULLER, (ass'r by mesne ass't,) Earle H. Smith.

EXAMINER'S ROOM No. 7.

The application above referred to has been considered. A portion of the description on page 8, from lines 9 to 15, and from the word "it," 21st line, to end of 23d line, must be erased, as the matter therein contained is *to* in the original specification, model, or drawing, and is an enlargement of the case. The first clause of claim, as now broadly drawn, is considered equivalent to a claim for forming a ridge or crease in a fabric by mechanism, rather than by hand. Ladies, in working fabrics, often pinch the same in ridges before hemming, and doing this by mechan-
343 ism rather than by hand is not patentable. The clause of claim should read, "The mechanism substantially such as herein described for forming a ridge or ridges on fabrics to be afterwards folded on the line of such ridges. The 4th clause of claim for so combining mechanism that a certain action shall follow, is broader than can be allowed, or the law warrants, and an amendment is suggested to that clause. The 6th, 7th, and 8th clauses of claim are not in patents to Fist, Feb'y 11, 1862, and Feb'y 12, 1861. Fist's guides may be attached to a sewing-machine. They have upper and lower parts having an equivalent relation, as described by applicant, and they have guides. The fact that the device for forming the creaser in these cases differ' from those shown by applicant does not make these clauses patentable.

There are some clerical errors to be canceled in the specification, noted in pencil, and amendments are also suggested to 2d, 3d, 4th, and 9th clauses of claim, that will, it is thought, more accurately define the invention, and render them admissible.

G. W. GREGORY, *Ex.*

Ex. No. 20.—J. O.

WASHINGTON, D. C., *Oct.* 16, 1868.

H. W. FULLER,
(Care of Earle H. Smith.)

PATENT-OFFICE LETTER OF REJECTION.

EXAMINER'S ROOM No. 7.

In the matter above referred to, in compliance with your request of Oct. 13, 1868, the specification above referred to is herewith returned.

Also find herewith an official circular, to the provision of which your attention is particularly directed.

G. W. GREGORY, *Ex.*

344 Ex. No. 21.—J. O.

WASHINGTON, D. C., *Oct.* 27, 1868.

H. W. FULLER, ass'r E. H. Smith.

EXAMINER'S ROOM No. 7.

PATENT-OFFICE LETTER OF REJECTION.

In the matter above referred to, the 7th clause as amended is considered to be fully included in the 6th, as the plate *m* is the lower part of the creasing device; and further, First, Feb'y 12, 1861, marks on front of the needle-presser and feed, and a broad claim could not therefore be granted for an arrangement of the creasing or marking device in such relation with these parts, and if the 7th claim was drawn to cover such an arrangement, the patent to First will answer it. The Office will not object to the allowance of the claim when the 7th shall have been erased.

G. W. GREGORY, *Ex.*

345, 346 And in the first six pages of a certain other printed book, entitled "History of Tuck-Creasers," and referred to in the evidence contained in the printed book first above mentioned at pages 52 and 53, and made a part of the same, but subject to the objections of defendants expressly noted on page 53 of the printed book first above mentioned, which said six pages are also annexed to this certificate and made a part hereof.

History of tuck-creasers.

347 HISTORY OF TUCK-CREASERS.

Long before 1860, Henry W. Fuller was engaged at New York in the manufacture of ladies' and children's undergarments, and while engaged in such manufacture the necessity of some means of tucking cloth automatically became apparent.

A long series of experiments resulted in the conclusion that it could be done by creasing a fold in cloth on a sewing-machine while actually sewing, by forcing the cloth over a point or blade with a notch or elastic pad suitably arranged and connected with the machine.

This conclusion was embodied in a device similar to that described in his specifications for the 1860 patent, and which device was used for a long time secretly behind locked doors, by which an advantage was obtained over parties engaged in like manufactures.

In 1859 Fuller concluded to patent his device, and accordingly applied for and obtained letters-patent, dated June 5, 1860, a copy of which is to be found on page 42 of the appendix.

This was the first automatic tuck-creaser ever patented, and, so far as is known, the first ever made, and has ever since been known as the "notch and point tucker."

After obtaining his letters-patent in 1860, Fuller abandoned his manufacturing of underclothing and devoted himself to the introduction of his tucking invention which he then believed, and as has since been demonstrated, was of great value.

During 1860, 1861, 1862, 1863, and 1864 he not only labored to intro-

duce his invention, but worked assiduously to improve his device, to overcome the obstacles which he himself met, and which sewing-machine men found in the practical use of it, and the result of his labors are apparent in the numerous tuckers he placed upon the market, as well as the progress toward perfection which each succeeding one exhibits over its predecessors. His efforts to introduce it were also greatly retarded by the high price of cotton goods consequent upon the war, which rendered tucking an expensive trimming.

348 The entire novelty of the invention, and the difficulties which all new departures in mechanics necessarily involve, made his labors not only severe, but the expenses heavy, and he almost immediately found himself not only struggling with the ordinary obstacles on an untried field, but embarrassed pecuniarily. All his time, as well as every dollar he could earn or borrow, was devoted to that one object for several years, and although large numbers of the tuckers were sold, at the end of seven years' earnest and manly struggle he found himself largely in debt, all incurred in this enterprise and the necessaries of life. So great indeed was his pecuniary embarrasment that, in 1865, having applied for letters-patent for an important improvement and paid the initial expense, when the patent was allowed he was unable to pay the final fee, and a patent which would now be of great value was forfeited and lost.

In fact, it was not until 1870 that he was enabled to make anything over his expenses and pay his debts incurred in the tucker business.

In order to maintain himself and keep up his experiments, he was obliged in 1863–'4, to part with shop-rights under his 1860 patent to the Wheeler & Wilson Sewing Machine Co., Singer Sewing Machine Co., Grover & Baker Sewing Machine Co., Willcox & Gibbs Sewing Machine Co., and Planer & Keyser Sewing Machine Co., for which he received in the aggregate $2,500, a totally inadequate compensation, as will be seen by the fact that the estimated number made and sold by these companies, under these licences, aggregates to the present time 645,000, on which the profit to them cannot have been less than $483,000.00.

For a period of six years, or up to 1866, Fuller and his licensees were the only parties who made and sold tuck-creasers in the United States, and then the first infringement was made by Henry C. Goodrich, who commenced the manufacture and sale of what is well known now as the "Goodrich notch and blade tucker," involving with his improvement the Fuller invention of 1860.

A suit was promptly commenced against him in the United
349 States circuit court for the northern district of Illinois, and a motion made for a preliminary injunction on affidavits, which will be found in appendix, pages 1 to 23, inclusive. As will be seen by reference to these affidavits, the witnesses represent all the well-known sewing-machines manufactured at that time, and in these affidavits place Fuller's claim to priority beyond question, and also tell the story of his struggles.

A final decree was granted by his honor Judge Drummond, and entered in that suit, restraining the defendant from making his tucker, on February 4, 1868. (See appendix, page 24.)

On the application of said Goodrich a license, exclusve in its nature, was given him, under which he has continued the manufacture of his tuck-creaser, and up to the present time, March 1st, 1873, his sales aggregate 483,408 tuckers.

In 1868 the second infringement was made by Smith C. Boughton, of

Troy, New York, in an attempt to manufacture a tuck-creaser which employed the notch and point feature of Fuller's 1860 patent.

Boughton was enjoined by decree of the United States circuit court for the northern district of New York, entered March 19, 1869. (See appendix, page 27.)

The third infringement of Fuller's 1860 patent was made by Sibley & Stoops, Judd & Powell, and others, of Philadelphia, who engaged in the surreptitious manufacture of an imitation of the Goodrich tuck-creaser, licensed by Fuller.

They were detected, as shown by the affidavits to be found in appendix, pages 34 to 38, and were restrained by decree entered in a suit in the United States circuit court for the eastern district of Pennsylvania. (See appendix, page 39.)

In addition to the decree they were compelled to surrender a large amount of tools, stock, and finished goods, and to pay $4,000, and were also arrested and prosecuted under the trade-mark laws of Pennsylvania.

The fourth and last infringement of Fuller's 1860 patent was made by E. S. Yentzer & Co., of Chicago, Illinois, who first commenced the manufacture of an ordinary notch and point tucker, and shortly
350 changed it to a spring notch and blade, an imitation of a device of Fuller's, made and sold by him in 1865.

Suits were promptly commenced against them in the United States circuit court for the northern district of Illinois, and are now pending.

These, so far as known, are the only infringements which have been carried on, except surreptitious manufactures, which have been conducted with such secresy as to defy detection.

The Rose patent of 1863.

In or before 1863, one Israel M. Rose, in the employ of the Willcox & Gibbs Sewing Machine Co., in New York, invented a new method of marking a crease in cloth by what is known as the pinching process, and also embodied with it important improvements in the mechanism of a tuck-creaser, independent of the creasing devices.

This invention was assigned to James Willcox, to whom letters-patent was issued Sept. 22, 1863, which letters-patent was subsequently assigned to the said company.

The Willcox & Gibbs Company, however, preferring the notch and blade device of Fuller, did not make the Rose tuck-creaser, and Fuller did not know its nature until as hereinafter stated.

This patent was the second in point of time ever granted for a vibrating tuck-creaser on a sewing-machine.

This invention of Rose made a crease by means of jaws, hinged together and opening and closing at intervals, something after the manner of a pair of pincers, which seized the cloth and pinched a ridge in it.

In the operating mechanism it also improved on Fuller of 1860, by connecting all the parts together and producing a device which required but one attachment and one adjustment with reference to its relations to the needle or line of seam. It also involved other improvements in details of construction which are particularly described in the letters-patent, which will be found in appendix, page 47, as re-issued.

351 The improvements made by Rose, especially in the operating mechanism, were such an advance in the art that nearly all of them were at once applied to and have ever since been used in nearly

all vibrating tuck-creasers, whether operating by the pinching or notch and point process.

Shortly after the invention of Rose, Henry W. Fuller discovered his method of pinching, which is now known as the "diagonal thrust," and thenceforward devoted his time and labor to the development of this device.

This was put in shape for the market and brought to the notice of the trade in 1865, when, on submitting it to the Willcox & Gibbs S. M. Co., he was met, greatly to his surprise, by the Rose patent.

Finding that he was covered by Rose, although his pinching surfaces were different in construction and mode of operation, he pleaded with the company his originality in tuck-creasing, his labors in that line, the fact that they had obtained rights under his 1860 patent for a mere song, and his poverty, which was well known, and asked that they should sell him the Rose patent and give him a long time in which to pay for it.

Recognizing the force of his appeal, they acceded to his request, and after great effort he secured loans of money by which he was enabled to make the payments, and January 10, 1868, obtained a conveyance of the Rose patent, with the exception of a shop-right reserved by the company.

This enabled him to go on with his pinching tuck-creaser, and having obtained letters-patent for his device, dated March 19, 1867, which will be found in appendix, page 53, he devoted his entire time to the perfecting *to* his invention; and the result of his labors are shown in letters-patent issued to him dated respectively, May 11, 1868, appendix, page 64; May 19, 1868, appendix, page 58; April 13, 1869, appendix, page 68; March 14, 1871, appendix, page 73; and August 13, 1872, appendix, page 76; all of which were for improvements resulting from practical experience, severe labor in experiment, and the outlay of a large amount of money.

352 Henry W. Fuller, in addition to his labors in making improvements, has also been engaged since 1865, when he first entered in the market, to the present time, in the manufacture and sale of his pinching tuck-creaser, large quantities of which are in use all over the United States, and are especial favorites among manufacturers of ladies' and children's underclothing, on account of their durable quality and thoroughness of execution.

The first infringment upon Fuller's rights under the pinching patents was made by John C. Jensen, of Chicago, who commenced in 1870 the manufacture of a tuck-creaser embodying the altogether adjustable feature of the Rose patent, the diagonal thrust of the Fuller patent of 1867, and the detachable-point feature of the Fuller patent of 1868.

He was promptly enjoined under those three patents, and ceased the infringement; which, with other parties, was recommenced in 1871, when suits were again promptly commenced in the U. S. circuit court for the northern district of Illinois, and the motions for injunction were pending when the October fire at Chicago swept out of existence both the infringement and the suits.

The manufacture of these infringing tuck-creasers has ceased.

The next infringements were made by Henry B. Goodrich, at the city of Chicago, Illinois, who made a pinching-creaser, and E. S. Yentzer & Co., at the same place, who made a notch and blade creaser embodying the altogether adjustable feature, or, in other words, the connection of the upper and lower parts of the device, so as to be altogether adjustable with reference to the needle or line of seam.

These parties were promptly sued, and motions made for preliminary injunctions, which are now pending in the U. S. circuit court for the northern district of Illinois.

The scope of the Rose patent of 1863 has been thoroughly demonstrated by the repeated rejections of the Patent-Office of a large number of patents which have been held by the office to be anticipated by Rose.

353, 354 And in the exhibits, models, machines, letters-patent, and documents referred to and described in said evidence, all which are to be produced by the parties respectively, who exhibited the same before me in the said circuit court upon the hearing of the said appeals, in the said Supreme Court, and are there to be identified by admission of the opposite party, or by affidavit, as occasion may require, pursuant to the stipulation of the parties in that behalf, and in the affidavit of George L. Chapin, Edwin J. Cubley, and Norman H. Sherburne, which are referred to in their depositions respectively, and made part of the same, and copies whereof are hereunto annexed and made part of this certificate; which said printed book of evidence, and said six

355, 356 pages of said history of tuck-creasers, and said exhibits and said affidavits are respectively to be deemed and taken as duly identified and embraced within the record of the causes aforesaid for all the purposes of the hearing of said appeals in said Supreme Court.

In testimony whereof, at the request of said appellants, who were complainants in the court below, by their counsel, the said appellees, defendants in the court below, by their counsel, assenting thereto, I have hereunto set my hand and seal, at Chicago, in the district aforesaid, this 18th day of September, A. D. 1874.

THOMAS DRUMMOND, [SEAL.]
Circuit Judge.

(Endorsed:) Filed Sept. 19, 1874. W. H. Bradley, clerk.

357, 358 *Affidavit of G. L. Chapin, referred to in the foregoing certificate, case No. 1.*

Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

Affidavit of G. L. Chapin in the above-entitled cause.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

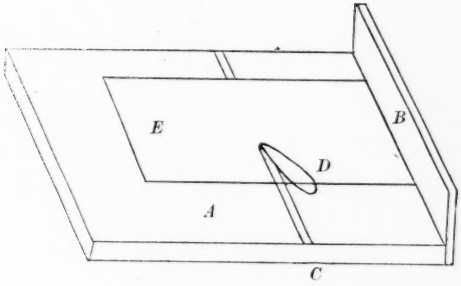
G. L. CHAPIN, being duly sworn, deposes and says that he is about forty years of age, that he is a practicing patent attorney and patent solicitor, and is a professional expert, also a practical mechanic; that he has been engaged as such attorney, solicitor, and expert in

359, 360 Chicago for more than seven years; that he is familiar with sewing-machines, and with their attachments now in common use; and especially so with tuck-markers, gaugers, gatherers, pleaters, creasers, &c. Deponent further says that he has carefully examined the patent issued to Fuller & Goodell June 5, 1860, No. 28633, for tuckers for sewing-machines, and the models marked "E. S. Yentzer," to which patent commissioner's certificate was attached June 5, 1872. The

models are marked "E. S. Yentzer, Ottowa, Illinois." The Fuller and Goodell patent is for marking cloth or creasing it, as it passes over the cloth-plate of the machine, for the purpose of forming a guide on which the cloth may be folded. The direct means for accomplishing this consists, first, of a pencil or similar device which has given to it a vertical reciprocating movement, so that it will strike the cloth
361, 362 with the downward movement of the needle-bar and make a mark on the cloth. The Yentzer models show no such device, nor any equivalent therefor; no coloring-matter being left on the cloth. The second device shown in the Fuller and Goodell patent consists of a smooth-edge marker, which is considerably wider than it is thick, shown at i, figure 3, in said patent. The inventor says that it is chisel form. This marker is made to have a vertical reciprocating motion with the needle-bar, and strike the cloth and force a portion of it down into what the inventor calls a "leather," which is a separate piece, and as shown in model with commissioner's certificate of June 15th, 1872, attached. It is of elastic substance. Now, no such leather is shown in the Yentzer models, nor is there any equivalent therefor. Nor is there any chisel-form marker such as is shown in the Fuller and Goodell patent.
363, 364 In the latter patent there is a frame suspended above the cloth-plate of the machine to support the spring-arms of the markers, which are struck by a horizontal bar fastened to the needle-bar of the machine to force the markers on to the cloth so as to produce an indentation or crease. No such frame is shown in the Yentzer models, nor can such a horizontal bar be used therewith. In the Fuller & Goodell patent the plate which supports the leather, over which the cloth passes, is provided with a slot for adjusting the leathers to the width of the nick to be made. The spring-arms of the chisel-form markers are adjustable on a horizontal bar to correspond to the adjustment of the "leathers" in the slot, but as no leathers are used in the Yent-
365, 366 zer's models no such slot is made, nor are there any horizontal bars on which the spring-arms of chisel-form markers are to be adjusted, nor any equivalent therefor. The crease in the Fuller and Goodell patent is formed by bruising or binding the fabric, and thus destroying, in a measure, its elasticity by forcing it down into an elastic bed or leather. The Yentzer models are constructed widely different from complainant's device, as will be seen from the following description: They consist of a bed-plate which is fastened to the machines by screws, and to which is attached spring-arms of suitable length to bring the marker the proper distance from the needle; this marker consists not of a chisel-form device, but a round sharp point or an inverted conical point, (more properly,) which pe'forates the cloth with indentations corresponding in distance apart with the needle's perforat'ons.
367, 368 The cloth thus operated upon rests on the aforesaid bed-plate which is provided with a hole through it to allow the point to pass through the cloth.

The operation of the Yentzer device is as follows: The conical point pe'forates the cloth and separates the fibres of which it is composed, and consequently so weakens it for the time being that it may be readily folded to form a tuck. Fuller and Goodell's tuck-marker forms a crease by a succession of blows struck on the cloth resting on an elastic bed as by a bruise, but the work is done on the Yentzer models by seperating the fibre and reducing its strength on a line of the pe'foration. The only real mechanical identity found in the devices, made under the two patents, is the fact that they derive their power from the needle-bar.

EXHIBIT X.



This device was in public use for folding paper in 1850.

G. L. CHAPIN.

Deponent further says that creasing devices are old, and that
369, 370 one delineated on sheet X, a part of this affidavit, was in public use twenty years since or more. A is a table; B is a guide; C is a groove in the top of the table. The operation is such that when a sheet of paper, E, is placed on the table and against guide B, a smooth-edge implement D may be used to press the paper into the gro've, thus forming a crease in the paper for the convenience of folding it.

Deponent further states that he has examined a patent granted to C. D. Wheeler, Feb. 14, 1860, No. 27179, a prior patent, provided with a bed-plate in which is a notch to receive a sharp conical point fastened to a spring-bar or arm operating above the bed-plate, and marking the cloth substantially the same manner as is done by the Yentzer devices and Fuller and Goodell devices. The notch, however, in the
371, 372 Wheeler patent, does not pass through the bed-plate, and in this regard it is more like the Fuller and Goodell patent than like Yentzer's device at issue. C. D. Wheeler in his patent uses soft metal for forming a notch to prevent injury; in this regard it fully anticipates complainant's invention; marking, therefore, on cloth to form a crease was an art publicly known prior to either complainant's or defendant's devices.

G. L. CHAPIN.

Subscribed and sworn to before me this ninth day of August, A. D. 1872.

[SEAL.] D. HARRY HAMMER,
Notary Public.

(Endorsed:) Filed Sept. 2d, 1872. Wm. H. Bradley, cl'k.

373, 374 *Affidavit of N. H. Sherburne, referred to in the foregoing certificate, case No.* 1.

Circuit court of the United States for the northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In chancery.

Affidavit for defendants.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

N. H. Sherburne, being duly sworn, deposes and says that he resides in Elgin, Illinois; that he is a solicitor of patents and a practical mechanic; that he has an office in Chicago, Illinois; that he is thoroughly acquainted with the art of sewing-machines, their mechanism and attachments; that he has been examined as an expert in patent cases.

375, 376 Deponent further says that he has examined and is perfectly familiar with the patent issued to H. W. Fuller and A. W. Goodell, June 5, 1860, No. 28633, for a mechanism for marking cloth in sewing-machines, and that he has also examined, and is perfectly familiar with the model of tuck-marking attachments to sewing-machines marked "E. S. Yentzer," to which is affixed the certificate of the Commissioner of Patents, dated June 5th, 1872, and for which device a patent was issued to the said E. S. Yentzer, April 11th, 1872; that the Fuller and Goodell device is for forming a crease or ridge on the upper

and lower surface of the cloth as it is passed over the cloth-plate of the machine for the purpose of forming a guiding-line on which the cloth may be folded. A pencil is also attached to this device, and so
377, 378 arranged as to form a line of dots on the upper surface of the fabric, to be followed by the line of stitch in quilting. In the Yentzer device, the mark forming the guiding-line for turning the fold is made by perforating the fabric, so as to slightly move the fibres of the same. The Fuller and Goodell device consists of a mechanism embodying the following mechanical parts, viz: A flat metal plate which is attached to the cloth-plate of the machine. In this plate is formed a longitudinal groove, within which is fitted two movable blocks, one of which is provided with a metal blade extending upward from its upper surface; the other block is provided with a groove formed in its upper end, within which is permanently secured a piece of leather or other elastic substance. A bar is attached to the shank of the presser-
379, 380 foot and extending outward at right angles to and above the metal plate. To this bar is affixed an arm which extends backward horizontally over and in the direction of the length of the plate. To this arm is affixed two moveable spring-arms, which extend transversely over the plate to and over the moveable blocks. One of these spring-arms is provided with a socket within which is fitted a wooden die having a groove formed in its lower end, which corresponds with the blade affixed to the block; the other spring-arm has its end bent down, and forming a blade arranged in a position to come in contact with the leather affixed within the block over which it rests. A horizontal arm s attached to the needle-arm, and extends backward over the spring-arms, and in such a manner as to bear upon said spring-arms
381, 382 when moved downward by the descending movement of the needle-arm. This device is operated by passing the cloth over the plate and blocks, and by the descending movement of the needle-arm the arm attached thereto is brought in contact with the spring-arms, depressing the same, which with one arm pinches the cloth between the die and block, the blade therein forcing the fabric into the groove in the die, which forms a ridge in the upper surface of the same, and with the other arm the downward beat portion thereof, forcing the cloth into the groove formed in the leather, pinching the same therein, which forms a ridge on the opposite or lower surface of the cloth. In this device a clasp or pencil-holder is adjustably attached to the arm affixed to the needle-arm; this pencil is so arranged as to form a line of dots upon the fabric, as the same is depressed by the needle-
383, 384 arm, forming a line to be followed by the needle when quilting, not for marking a line to guide the fold.

The Yentzer device is found to consist of the following mechanical parts, viz: A base-plate which is attached to the cloth-plate of the machine by means of a thumb-screw on the presser-foot; a spring-arm is permanently attached to the rear end of the base-plate, and extends horizontally forward to the foreward end of the said plate. A sharp-pointed pivot or pin is secured in the forward end of the said arm, and is so arranged as to pass into an aperture formed through the forward end of the base-plate. The spring arm is provided with a longitudinal slot through which the needle passes, thus bringing the said arm in a position to be depressed by the descending movement
385, 386 of the needle bar. A *guage* is attached to the base-plate for guiding the cloth. This device is used by passing the cloth over the base-plate and under the arm, and by a downward movement of the needle-bar the arm is depressed, forcing the pointed end of the

pivot through the cloth, perforating the same, and as the needle-bar ascends the said arm is elevated by its own elasticity, relieving the pivot from the cloth, and as the same is moved by the feed, the downward movement of the needle-bar is repeated, thus forming a line of perforations in the cloth parallel to the line of stitch.

It is fully seen from the foregoing description of the two devices that they are in no way identical, nor can any part or piece in one device be substituted for one in the other.

387, 388 In the Fuller and Goodell device the plate holding the blocks is detached from the parts operating thereon, which necessitates the adjustment of the parts separately for forming folds of different width, while in the Yentzer device the upper and lower parts, or, in other words, the base-plate and arm, are connected and together adjustable relative to the needle-bar for forming folds of different width. This principle, however, is well known to the art, and was at the time of the issuing of complainant's patents, the same being shown in the patent to C. D. Wheeler, of February 14th, 1860, No. 27179. In the Fuller and Goodell device are found two spring-arms, one carrying a die or chisel, acting upon a leather or other elastic block or die, one of which is a mechanical equivalent to the other. In the Yentzer device is found but

389, 390 one spring-arm, which carries a sharp-pointed pivot, adapted to enter the aperture on the base-plate, which is wholly unlike that of complainant's device, but so much of both devices as relates to the spring-arm and pointed pivot in the Yentzer device is well known to the art, and was at the time of the issuing of complainant's patent, the same being shown in the patent to C. D. Wheeler of February 14th, 1860.

Deponent further says that should the complainant's device be made in all its parts, as shewn in the model, it would be impracticable and inoperative, for the following reasons:

First. The arrangement of the parts and their connections are such that when subjected to the action of the machine and resistance of the fabric it could not sustain and analogous action.

Second. There seems to be no way provided by which the blocks may

391, 392 be permanently secured in the plate at the proper relative position with the die; therefore the resistance of the fabric would have a tendency to move them.

Third. When working heavy fabric, or when working fabric where several thicknesses are to be between the marking device, (as is often necessary,) the fabric would so fill the groove in the die as to prevent the blade from having sufficient action thereon to form the ridge; and

Fourth. When used in light fabric, the same being pinched between the die and the block by a succession of blows would have a tendency to injure the fibres; while in the Yentzer's device none of these difficulties are met with; the mark is formed by a series of perforations, which move the fibres latterally without injuring them, the perforations being such as those formed by the needle.

393, 394 Deponent further says that he has examined and is familiar with the tuck-marking device now being manufactured by defendants, and that the said device is identical in every way with the certified model of the said Yentzer patent, except a slight change in the form of construction, but that such change does not in any way change the principle.

Deponent further says that the forming of a mark in fabric to aid in tucking, and by a mechanical device, was old at the time of the issuing of both the complainant's and defendants' patents, the same being shown

in patent to C. D. Wheeler February 14th, 1860, and that the Yentzer device is in no way identical with the complainant's, either in principle of construction, mode of operation, or result attained, except that both receive their operating power from the needle-bar or arm of the
395, 396 machine and that they are both intended for the same purpose.

N. H. SHERBURN.

Subscribed and sworn before me this 19th day of August, 1872.

[SEAL.] M. J. DUNN,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. Wm. H. Bradley, clerk.

Affidavit of Edwin J. Cubley, referred to in the foregoing certificate, case No. 1.

Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCALES. } In equity.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

397, 398 Edwin J. Cubley, being duly sworn, deposes and says that he is 32 years of age; that he resides in Chicago, Illinois; that he is an engineer and machinist, and that he is now, and has been for many years, engaged wholly in the manufacture of sewing-machine attachments, and that he has no interest in Yentzer's patent tuck-marker, and manufactures said patented article under contract only, when at all; that he has frequently been examined as a witness in patent cases.

Deponent further says that he has examined and is familiar with the C. D. Wheeler patent No. 27199, dated Feb'y 14, 1860, and that he has examined and is familiar with Fuller's & Yentzer's patent; that the C. D. Wheeler patent uses a spring-arm to free the upper marker from the goods while in theact of feeding or moving the goods along; that
399, 400 it uses a marker *that it uses a marker* on the upper and under sides of the goods, consisting of a notch beneath, filled with soft metal, and a point above the goods, by means of which point the goods are forced into the notch in its descent, and the continued motion of which forms a crease as the goods are fed or moved along; the markers are permanently fixed together, and not adjustable to each other, and is adjusted only as a whole in relation to the width of the tucks, and provided with a scale for determining the width of the same.

Deponent further says that he has examined the model and patent of H. W. Fuller, dated June 5th, 1860, number 28633, and is familiar therewith; that it embodies the same principles as the C. D. Wheeler patent, arriving at the same results in a more complicated manner: First,
401, 402 by using markers both above and below the goods; second, by using a spring-arm or lever, and by using a soft pad of leather or other material in place of a notch filled with soft metal; also by using a scale for determining the width of the tucks working by a reciprocating motion in the same manner and for the same purpose; that it has two sets of markers instead of one, one having the notch or pad below the goods and the point above, the other vis*a* vers*e*; that the markers are not permanently connected, but are seperately moveable on an arm of the device, each having to be adjusted to the other whenever the width of a tuck is to be changed; that the mode of attachment to the sewing-machine is in three pieces, the scale and markers below

the goods being attached to the bed-plate of the sewing-machine
403, 404 by means of thumb-screw, while the upper markers and spring-arms are attached to a square bar which passes through a hole in a clamp to which it is fastened by means of said screw, which clamp is fastened to the presser-bar by means of a screw. The third piece is fastened to the needle-bar, and consists of a stiff piece of metal projecting over the spring arm or arms which contain the marker on the upper side of the goods, which piece of metal, by the descent of the needle-arm, forces the cloth into or on to the lower marker, as the case may be, carrying the goods with it for the purpose of forming a crease.

Deponent further says that he is familiar with Yentzer's patent as hereinbefore stated, dated Oct. 26, 1869, and April 11th, 1871,
405, 406 and numbered 113610, and is the manufacturer of the same, and has manufactured all the tuck-markers that have been made under said Yentzer's patent; that it consists, first, of a bed-plate made of a flat strip of brass or other metal attached to a presser-foot of a sewing-machine, having a scale marked upon it for determining the distance of the seam from the edge of the fold; 2d, of a gauge for guiding the edge of the fold after it has been marked and folded; 3d, of a lower and upper marker, the lower marker being a perforation through a flat piece of metal to receive the upper marker, and having a lip turned down on one side of the perforation or any other convenient place for holding the plate, containing the perforation up from the bed of the sewing-machine, to prevent the upper marker, which consists of a fine
407, 408 sharp point, from striking the bed-plate of the machine, thereby dulling the point, and injuring the sewing-machine; that each marker is fastened to a long strip of metal at the extreme left end, while the two are fastened together at the extreme right end, thereby forming a permanent adjustment of the marking-points in relation to each other, while both points, taken together, are adjustable in relation to the distance of the mark from the seam, and being held in the desired position by a flat plate or washer of metal lying over both the gauge and the lower marker-arm, which being pressed down by a stud and nut secure both at once in the desired position, the upper arm, to which is attached the point or upper marker, being bent up in a bow, thereby forming a spring for freeing the upper marker from
409, 410 the goods while in the action of being moved forward, and having in it an elongated slot for the passage of the needle of the sewing-machine, thereby allowing the end of the needle-bar to strike it, thus forcing the marker down upon the goods, causing it to perforate or mark the goods, a continuation of which, as the cloth is being fed along, produces a continuous mark in the goods. 4th. Having a piece of flat metal or wire lying along the top of the lower marker-arm for smoothing down the goods while in the operation of being marked.

Deponent further states that the first lot of said Yentzer's tuck-markers, so manufactured by said deponent, had a piece turned down on the left end of the lower marker-arm to hold it up from the bed-
411, 412 plate of the sewing-machine in order to give room for the passage of the upper marker, which consisted of a sharp point down through the lower marker, which consists of a perforation or slot in the lower marker-arm, and thereby prevent the point from striking the bed-plate of the sewing-machine and defacing the same, and become dulled itself; that deponent, finding he could save both material and labor in the manufacture of said tuck-markers by cutting the perforation in the said lower arm on three sides, and turning down the metal on the fourth side, so as to form the necessary support or leg for keeping the lower arm up from the bed-plate of the sewing-machine, changed

the manner of construction accordingly; that said change in construction was made with a view to economy merely, and without ref-
413, 414 erence to the working of the tuck-marker, there being actually no difference in the working of the markers, whether the support be formed by binding the metal down from the side of the perforation, or by bending down the end or a corner of the arm at some distance from the perforation.

Deponent further states that he finds in the Fuller & Goodell patents the markers in the device to be a chisel-formed blade and an elongated notch, in which *in which* is inserted leather or other elastic substance, in the Wheeler patent, a conical point and round notch filled with soft metal; whereas in the Yentzer patent a conical or sharp point is used to pass through an open or elongated slot in the plate beneath.

Deponent further finds that the markers in the Fuller & Goodell patents are substantially like the markers in the Wheeler patent
415, 416 in construction, mode of operation, principle, and result, and that Yentzer's differs from either in using an open long slot through the plate beneath the fabric as one of the markers, instead of a simple notch into the bed-plate filled with soft metal or leather or other elastic substance, and which deponent considers a material difference in the construction and mode of operation.

Deponent further says that mechanical devises embodying the principle of a notch and blade in machinery for various manufacturing and domestic purposes have been known to the art and in public use for more than fifteen years past, and in like manner devices for pinching, and neither is a new invention.

Deponent would refer for examples of the former to the various
417, 418 mechanisms and machines or devices for creasing sheet-iron in stove-manufactures; tin and other metals in the manufacture of tin-ware, tea-pots, & coffee-pots, and other table-ware, by means of a blade on the periphery of a wheel working in a groove or notch; also a fluting mechanism for doing up or fluting parts of ladies' dresses, and swedge-blocks in founderies, &c. In the latter the pincers, nippers, tweezers, and like devices for bending and creasing metals are common instances. Complainant did not invent the idea or principle, but simply a device or mechanism of his own for applying a well-known principle and process to tuck-markers as an attachment to sewing-machines.

EDWIN J. CUBLEY.

419, 420 Subscribed and sworn to before me this 17th day of August, 1872.

[SEAL.] SIMEON W. KING,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. W. H. Bradley, clk.

Affidavit of G. L. Chapin, referred to in foregoing certificate, and used in case No. 2.

Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In equity.

Affidavit of G. L. Chapin in the above-entitled cause.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

421, 422 G. L. Chapin, being duly sworn, deposes and says that he is about

forty years of age; that he is a practicing patent attorney and patent solicitor, and is a professional expert, also a practical mechanic; that he has been engaged as such attorney, solicitor, and expert in Chicago for more than seven years; that he is familiar with sewing-machines and with their attachments now in common use, and especially so with tuck-markers, gaugers, gatherers, pleters, creasers, &c.

Deponent further says that he has carefully examined re-issued letters-patent No. 3218, issued to complainant, assignee by mesne assignment from Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines. The said Rose patent is composed in part of four levers, a cloth-plate and frame, and a set-screw 423, 424 to hold the frame to the cloth-plate of the sewing-machine. The whole parts are a unity, and when an adjustment is to be made all the parts are simply moved to or from the needle-bar. The several mechanisms for marking and creasing are a fixture to the frame, and are not adjustable relatively to each other. The marking is done by a short lever-jaw and a spring-lever jaw; the short jaw is hinged to the spring-lever jaw by a clasp, and is operated by a spring-lever fastened to it by a loose joint, and to an upper lever-bar which is pivoted to a vertical standard fastened to said frame; the spring-lever jaw is fastened to the same part of the frame as the vertical standard is, and when the lever-bar is forced downwardly by the needle-bar of the machine, both jaws, which are serrated at their pinching ends, are brought 425, 426 to the cloth passing over the bed of the machine, and the short jaw is, by means of the curved spring-lever, forced inwardly toward the lever spring-lever jaw, so as to grasp a portion of cloth and punch it to form a ridge or crease, a continuous movement of the parts forming a continuous mark on the cloth by a pinching or nipping process. In order that the device may be made operative, a cloth-plate or bar is fastened to the frame, and extended from it far enough for the short jaw to strike it at each downward movement, the spring-lever jaw operating a little distance from the plate, but not coming in contact with it. Now, if a single part, except cloth-plate, be removed from the devices as described, it will be wholly inoperative.

Deponent further says that he has examined tuck-marking 427, 428 devices marked "Patented Oct. 26, 1869, April 11, 1871," used by defendants, and at issue in this case, and find that neither of them is a unity, and that neither can*t* successfully operated by a single adjustment; and in the manner of their requiring a compound adjustment each, they possess features which are distinct, separate, and novel as against the Rose patent, No. 3218. In short, Yentzers marks his work by such means as Rose in his patent (re-issue 3218) says were used prior to his invention, which is true. Yentzer uses a bed-plate with one or more adjustable attachments on it to be adjusted relatively to each other in order to operate. Rose has no such arrangement, his device being a unity and not adjustable relatively to its sep- 429, 430 arate parts. Rose uses two jaws for pinching a crease in the cloth; Yentzer uses no such devices nor any equivalents therefor, but instead thereof he used a point on a spring-lever and a hole in the bed-plate, which Rose says in re-issue 3218 (substantially says) was used prior to his invention. Rose uses an inflexible pivoted lever to receive motion from the needle-bar. Yentzer uses a spring-lever, not pivoted, but rigidly fastened to the bed-plate. Rose uses a spring-lever jaw and jointed jaw to punch the cloth; Yentzer has no such devices nor equivalents therefor. Rose uses a curve-spring lever to operate a short jaw, but Yentzer using no short jaw, & has no such spring-lever.

In brief, the principle of construction and mode of operation of the Rose patent No. 3218 are entirely different from those of the Yentzer
431, 432 patent. Further than this, C. D. Wheeler has a prior patent for marking-gauger for sewing-machines, dated Feb. 14, 1860, and No. 27179, which shows a spring-arm carrying a marking-point to operate in a notch in a bed-plate for marking cloth, which is a unity in adjustment, and more like complainant's device than respondent's device is like complainant's, and in the matter of adjustment said Wheeler's device fully anticipates the Rose patent. And Henry W. Fuller's patent of June 5th, 1860, both in the matter of adjustment and receiving motion from the needle-bar, anticipates the Rose patent, and is more like it than the defendant's is like the complainant's. In conclusion, Yentzer's attachments are found to be so dissimilar to that of Rose that unless a person were skilled in the art although a mechanic would not
433, 434 conceive they were for the same purpose, and that a person skilled in using the one would be very likely to require instructions to use the other, their construction, mode of operation, and principle being so different.

G. L. CHAPIN.

Subscribed and sworn to before me this 8th day of August, A. D. 1872.

[L. S.] D. HARRY HAMMER,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. Wm. H. Bradley, clk.

Affidavit of N. H. Sherburne, referred to in the foregoing certificate of evidence as used in case No. 2.

Circuit court of the United States for the northern district of Illinois.

HENRY W. FULLER
v.
435, 436 ENOCH S. YENTZER AND WALTER SCATES. } In equity.

Affidavit for defendants.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

N. H. Sherburne, being duly sworn, deposes and says that he resides in Elgin, Illinois; that he is a solicitor of patents and a practical mechanic; that he has an office in Chicago, Illinois; that he is thoroughly acquainted with the art of sewing-machines, their mechanism and attachments; that he has been examined as an expert in patent cases.

Deponent further says that he has examined and is perfectly familiar with the re-issued letters-patent, No. 3218, granted to Henry W. Fuller, the said complainant, assignee by mesne assignment of Israel M.
437, 438 Rose, for an improvement in tuck-creasing attachments to sewing-machines, and that he has also examined and is perfectly familiar with the model of tuck-marking attachments to sewing-machines, marked "E. S. Yentzer," to which is affixed the certificate of the Commissioner of Patents, dated June 5th, 1872, and for which a patent was issued to the said E. S. Yentzer, April 11th, 1871; that the said Rose patent is for forming a raised ridge on the upper surface of the fabric as it is passed over the cloth-plate of the machine for the purpose of forming a guiding-line on which the cloth may be folded, and that in the

Yentzer device the mark forming the guiding-line for turning the fold is made by a series of perforations through the cloth similar to that made by the needle; that the said Rose device consists of a mechan-
439, 440 ism embodying the following combination of mechanical parts, viz: a base-plate, to which is permanently attached a standard rising upon and from the said plate. To this standard is hinged a lever extending forward to and communicating with the needle-bar of the machine. A flat spring is vertically attached to the said base-plate slightly forward of the standard, and is bent to a horizontal position at a point below the lever. This spring extends forward to a point near the forward end of the said lever, and is there bent downward at an obtuse angle, forming a fixed jaw. At or near the centre of the downward-bent portion of this spring or jaw is hinged a flat rigid bar, which in connection with the adjacent portion of the spring forms a pair of jaws. To the upper end of the said bar or jaw is jointed a flat curved
441, 442 spring-lever, which is permanently attached to the lower sides of the main lever. Attached to the base-plate is a tongue extending from its forward end outward at right angles thereto, and in a position immediately under the moveable bar or jaw. The arrangement of the several parts is such, that when in their normal position, or when not positively acted on by the needle-bar, the lower extremity of the jaws, or that part coming in contact with the fabric, remains open and slightly above the tongue of the base-plate over which the fabric is passed, but when positively acted upon by the descending movement of the needle-bar, the jaw formed of the downward-bent portion of the spring is first brought in contract with and upon the fabric, impinging the same upon the cloth-plate of the machine and against
443, 444 the interior edge of the tongue, and the moveable jaw impinges the cloth on the upper surface of the tongue, and by the continuous downward movement of the needle-bar the main lever is further depressed, causing its spring end to act upon the upper end *to act upon the upper end* of the moveable jaw, moving the same on its fulcram, causing the lower end of said jaw to move toward the stationery jaw, seizing the cloth resting against or over the corner of the tongue, which is pinched between the jaws, forming a slight ridge upon the upper surface of the same, which forms a guide to fold the cloth parallel to the line of stitch. The Yentzer device is found to consist of an entirely different combination of mechanical parts, viz: A base-plate, which is attached to
445, 446 the cloth-plate of the machine by means of a thumb-screw, or in the presser-foot a spring-arm is permanently attached to the rear end of the base-plate, and extends horizontally to the forward end of the same. A sharp-pointed pivot or pin is secured in the forward end of the said arm, and is so arranged as to pass into an aperture formed in and through the forward end of the base-plate. This spring-arm is provided with a longitudinal slot through which the needle passes, thus bringing the said arm in a position to be depressed by the descending movement of the needle-bar. A *guage* is adjustably attached to the base-plate for guiding the cloth. This device is used by passing the cloth over the base-plate and under the arm, and by a downward movement of the needle-bar the arm is depressed, forcing the pointed end
447, 448 of the pivot through the cloth, perforating the same, and as the needle-bar ascends the said arm is elevated from contact with the cloth by its own elasticity, thus relieving the pivot from the fabric, and as the same is moved by the feed the downward movement of the needle-bar is repeated, forming a line of perforations in the cloth like those formed by the needle, and parallel to the line of stitch.

Deponent further says that it is fully seen that the Yentzer device now at issue in this case is constructed on a different principle from that of the Rose patent; that no part of its mechanism corresponds in form or mode of action; that no part or piece of the one device may be substituted for a part or piece of the other; that the spring in the Rose patent acting to open and lift the jaws from contact with the fabric is so shaped as to form a part of the said jaws and would be inoper-
449, 450 ative without the curved spring lever and main lever, each part being necessary to the action of the others, while in the Yentzer device the spring and arm carrying the pivot is in one piece and is automatically lifted from contact with the fabric by its own elasticity. The principle, however, that is to say, the elevating of the upper part of the marking device from contact with the fabric automatically by means of a spring, is well known to the art, and was at the time of issuing of the original Rose patent, the same being found in the patent of C. D. Wheeler, of February 14th, 1860, No. 27179, for a marking-*guage* for sewing-machines, the spring being used to perform the same function. This principle is also common to other devices in which one part is automatically elevated from contact with another by means of
451, 452 a spring, the same being found in patent to John Andrews, dated May 30th, 1838, and A. Bailey, June 20th, 1840, for mortising-machines. It is further seen that with the Rose device a ridge is formed on the upper surface of the cloth by means of jaws which open and close at intervals to seize and pinch the same when at rest and then release it as the same is moved by the feeding-mechanism, while in the Yentzer device a line of perforations is formed in the cloth like the perforations formed by the needle. It is still further seen that in both the Rose and Yentzer devices the upper and lower parts are connected and are together adjustable with relation to the needle for forming folds of different width, shewing that in this principle
453, 454 the two devices are identical, but each principle is well known to the art and was at the time of the issuing of the origina Rose patent, the same being found in the patent to C. D. Wheeler, of February 14, 1860, No. 27179. In this device, that is to say, the Wheeler device, the upper and lower parts are connected and together adjustable relative to the needle, and for the same purpose.

Deponent further says that should the Rose device be made according to the model it would be impracticable, as it would not form a ridge on heavy or starched fabric, as the arrangement of the stationary jaw is such as to draw the cloth tightly over the tongue, thus preventing the moveable jaw from seizing the same, while with the Yentzer device the arrangement of the parts is such as to insure the perforating of the fabric at every downward movement of the needle-bar.

455, 456 Deponent further says that he has examined and is familiar with the tuck-marking device now being manufactured by the said defendants, and that the said device is in every way identical with the certified model of the said Yentzer's patent except a slight change in the form and construction, but that such change does not in any way change the principle or mode of operation. From the above description of the Rose and Yentzer devices it is found that they are in no way identical, either in principle, construction, mode of operation, or result attained, except that both receive their operating power from the needle-arm or needle-bar of the machine; that in both devices the upper and lower parts are connected and are together adjustable relative to the needle, and that the upper part of both is lifted from contact
457, 458 with the cloth by the action of a spring, all of which was well known to the art at the time of the issuing of the said Rose

patent; the operating of a tuck-marking device automatically by the needle-bar or needle-arm of a sewing-machine being fully shewn in patent to Henry W. Fuller & A. W. Goodell, of June 5, 1860.

N. H. SHERBURNE.

Subscribed and sworn to before me this twentieth day of August, A. D. 1872.

[SEAL.] A. E. GUILD, JR.,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. W. H. Bradley, clerk.

Affidavit of Edwin J. Cubley, referred to in the foregoing certificate of evidence as used in case No. 2.

459, 460 Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
ENOCH S. YENTZER AND WALTER SCATES. } In equity.

STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

Edwin J. Cubley, being duly sworn, deposes and says that he is 32 years of age; that he resides in the city of Chicago and State of Illinois; that he is an engineer and machinist; is now, and has been for several years, engaged wholly as a manufacturer of sewing-machine attachments, but has no interest in the Yentzer patent or the sale of the manufactured article, and he manufactures the same under contract
461, 462 only; that he has frequently been examined as an expert in patent cases.

Deponent further says that he has examined and is familiar with the Rose patent, No. 40084, dated Sept. 22d, 1863, re-issued No. 3218, dated Dec. 1st, 1868, and that it consists, first, of a base or bed-plate, fastened to the bed-plate of a sewing-machine with a thumb-screw, through an elongated hole or slot, allowing it to be adjusted to the width of tuck desired; second, an upright standard, fastened to the right end of the bed-plate, at the top of which is fastened a jointed arm, extending to the left and passing under some projection of the needle-bar of the sewing-machine, which in its descent causes it to press on a spring at its left end, which spring operates a pair of jaws, which are connected at the left end of a spring-lever, which is fastened at the right end of a bed-
463, 464 plate, and which spring-lever raises the nippers or jaws from the goods while the goods are being moved forwards, the jaws being joined together by a jointed clamp in the centre, one of them being permanently affixed to or a part of the spring-lever before mentioned, the other connected with the spring from the jointed lever, which, when the jointed lever is forced down upon the goods, causes the loose jaw to grasp a small portion of the goods, and forcing it up against the other jaw, forms a pinch or crease, a continuation of which forms a continuous crease, parallel with the line of sewing. This tuck-marking attachment does its marking wholly on the upper side of the goods, and not like the Wheeler and Yentzer's devices, which use a marker on opposite
465, 466 sides of the goods, the plate running under the jaws in the Rose patent, acting merely as a protection to the plate of the sewing-machine, as in my opinion it would work equally well on the bed-

plate of a sewing-machine, as far as making a mark or crease is concerned; and deponent further says that said Rose patent is not at all similar in construction, mode of operation, or principle, to the Yentzer patent, although the result obtained is the same in both, so far as making a line or crease is concerned.

Deponent further says that he is familiar with Yentzer's device for making tucks for sewing-machines, stamped Oct. 6th, 1869, and April 11th, 1871, and is the manufacturer thereof, and has manufactured all the tuckers that have been made under said Yentzer's patent; that it consists, first, of a bed-plate, made from a flat strip of brass or 467, 468 other metal, attached to a presser-foot of a sewing-machine, having a scale marked upon it for determining the distance of the seam from the edge of the fold. Second, of a *guage*, for guiding the edge of the fold after it has been marked and folded. Third, of an upper and a lower marker, the lower marker being a perforation through a flat piece of metal to receive the point of the upper marker, having a lip turned down on one side of the perforation; or any other convenient place for holding the plate containing the perforation, up from the bed of the sewing-machine, to prevent the upper marker, which consists of a sharp point, from striking the bed-plate of the sewing-machine, thereby dulling the point and injuring the machine; that each marker is fastened to a long strip of metal at the extreme left end, while the 469, 470 two are fastened together at the extreme right end, thereby forming a permanent adjustment of the marking points in relation to each other, while both points taken together are adjustible with relation to the distance of the mark to the seam to be made, and are held in the desired position by a flat plate or washer of metal lying over both the *guage* and lower marker-arm, which, being pressed down by a stud and nut, secure both at once in the desired position, the upper arm to which is attached the point or upper marker being bent up in a bow, thereby forming a spring for freeing the upper marker from the goods while in the action of being moved forwards, and having in it an elongated slot for the passage of the needle of the sewing-machine, thereby allowing the end of the needle-bar to strike it, and thus force 471, 472 the marker down upon the goods, causing it to perforate or mark the goods, a continuation of which, as the cloth is being fed along, produces a continuous mark in the goods. Fourth, having a piece of flat metal or wire lying along the top of the lower marker-arm for smoothing down the goods while in the operation of being marked. The first Yentzer tuck-markers manufactured by me had a piece turned down on the left end of the lower marker-arm, to hold it up from the bed-plate of the sewing-machine in lieu of the extra piece soldered on for that purpose, as shown in the model; but afterwards finding that I could save both material and labor by cutting the perforation on three sides and turning it down on the other side, thereby forming a piece for holding the lower marker-arm up from the 473, 474 bed-plate of the sewing-machine, and serving the same purpose as the piece soldered on or the end bent down, at less expense, I did so change their construction. There is no difference in the working of the attachment, whether the lip be bent down from the surplus metal which is cut out of the perforation, or soldered on, or bent down at some distance from the perforations. The only to be obtained by it is the raising and support of the lower marker-arm from the bed-plate of the sewing-machine, high enough to prevent the sharp point of the upper marker from coming in contact with it, thereby damaging both, as before stated.

Deponent further states that he has examined and is familiar with the C. D. Wheeler patent, No. 27179, dated Feb'y 14, 1860, and find it uses a spring arm to free the upper marker from the goods
475, 476 while in the act of being fed or moved along; that it uses a marker on both the upper and lower sides of the goods, consisting of a notch with soft metal beneath the goods and a point above the goods, by the descent of which point the goods are forced into the notch, and the continued motion of which forms a crease, as the goods are fed or moved along; that the markers are permanently fixed together and not adjustable to each other, but are adjustable as a whole in relation to the width of the tucks desired to be marked, and is provided with a scale for determining the width of the same.

Deponent further says that he finds the following differences between said Yentzer's device and the device of the complainant under
477, 478 the Rose patent, viz: First, Yentzer's device has markers on the opposite sides of the goods, whereas the Rose patent has both markers on the upper sides of the goods, and actually has no lower marker; second, the spring arm for Yentzer's device for lifting the upper marker from the cloth consists of a single spring-arm lever, whereas in the Rose device the spring arm and the fixed jaw of the marking-device require four levers to operate the marking-device; third, I find that the device in the Rose patent for attaching the tuck-marker to the sewing-machine is alone used for adjusting the width of the tuck also, and this can only be done by moving the entire device, whereas the Yentzer's device is attached to the presser-foot of the sewing-machine by a set-screw, and the width of the tuck is adjusted to a
479, 480 gauge attached to the device by a thumb-screw.

EDWIN J. CUBLEY.

Subscribed and sworn to before me this 17th day of August, 1872.
[SEAL.] SIMEON W. KING,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. W. H. Bradley, clk.

The affidavit of G. L. Chapin, referred to in the foregoing certificate of evidence and used in case No. 3.

Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
HERMAN B. GOODRICH. } In chancery.

Affidavit of G. L. Chapin in the above-entitled cause.

481, 482 G. L. Chapin, being duly sworn, deposes and says that he is about forty years of age; that he is a practicing patent attorney and patent solicitor, and is a professional expert, also a practical mechanic; that he has been engaged as such attorney, solicitor, and expert in Chicago for more than seven years; that he is familiar with sewing-machines, and with their attachments now in common use, and especially so with "tuck-markers," gauges, gatherers, ple'ters, creasers, &c.

Deponent further says that he has carefully examined re-issued letters-patent 3218, and is familiar therewith, and that he has examined the patent granted to H. B. Goodrich, January 2d, 1871, No. , and the

device made under them, and that the following are their differences and similarities. The Rose patent, No. 40080, issued September
483, 484 22, 1863, re-issued Dec. 1, 1868, No. 3218, which I call the "Rose patent," is designed to mark or crease cloth as it passes over the cloth-plate of the sewing-machine, whereby it may be readily folded on a line corresponding to line of seam by pinching the cloth to make a ridge or crease. It is true that both devices receive their motion from the needle-bar, and that both are substantially for the same purpose; but the H. B. Goodrich devise, at issue in this case, is constructed on a different principle from that of the Rose patent. No part of its mechanism corresponding in form or mode of operation, not one part nor piece of the Goodrich attachment can be attached to the devices made under the Rose patent, without invention or reconstruction. The direct means for making the ridge or crease in the Rose device consists of
485, 486 two ser'ated jaws, which are so operated on as to grasp a small portion of the cloth, when the needle is down, and pinch it together, and thus form an upwardly projecting ridge or crease, which admits of the cloth's being folded preparatory to being stitched. The short jaw is rigidly fastened to a clasp, and operated by a curved spring-lever to an upper lever-bar, which is pivoted to a vertical standard and operated by the needle-bar. The other jaw is formed by the elongation of a spring-lever which is fastened to the same frame-work as is the aforesaid standard, and the jaw is held in position to the short jaw by a joint or hinge, of which the clasp forms a part. The operation is such that when the needle-bar strikes the lever-bar the short jaw will be moved towards the spring-lever jaw and gather up and pinch
487, 488 together a small portion of the cloth, a continuous movement of the part forming a continuous ridge or crease. The device, to be made operative, is provided with a bar or plate over which the cloth moves, and on which the short jaws strike spring-lever jaw, operating a little distance from its edge, and both jaws being ser'ated. The device therefore consists in short lever jaw, spring-lever jaw, a hinge-clasp, a lever-bar, curve-spring-lever, narrow cloth-plate, vertical standard to which the lever-bar is pivoted, and a frame provided with a cloth-plate; all of which are necessary, except cloth-plate, to perform the single function of marking or creasing. H. B. Goodrich devices, at issue in this case, consist of a bed-plate to support a longitudinally-sliding gatherer, which is operated by a lever on the pivoted
489, 490 end of a hammer-arm, and between the latter and the gatherer is interposed a plate against which the cloth is brought by the gatherer, when, at the proper time, the smooth-faced hammer is made by the needle-bar to strike the cloth folded over the curved end of the gatherer and flatten the fibre so as to form a crease, the operation being similar to binding a piece of sheet-iron or leather over any suitable angle and forming it there by a succession of blows by a hammer. There is no pinching done, as in the Rose device. In short, the interposed plate performs the function of an anvil to resist the concussions of the blows of the hammer. In the H. B. Goodrich device there is no hinged clasp, no spring-jaw, no ser'ated jaws, no spring-lever
491, 492 jaw, no plate for jaws to operate on, nor no curved spring lever, nor any equivalents therefor. An ordinary operation, accustomed to use the Rose attachment, could hardly use the Goodrich attachment without instructions. It is true, in the Goodrich attachment, that the hammer, after a blow has been struck, is automatically elevated by a spring, but C. D. Wheeler, in his patent of February 14, 1860, No. 27179, used a spring to perform the same function in a marking-guage

for sewing-machines; therefor' a spring for that purpose was well known to the art at the time the Rose patent was issued. Said C. D. Wheeler's patent also is adjustable as a unity, relatively to the width of tuck desired; therefor' so much as relates to "together adjust-
493, 494 able," was also well known to the art when Rose's patent was issued. From the above-described differences it is found that the H. B. Goodrich devices, at issue in this case, are different in principle of construction and mode of operation, although the object to be attained is similar.

G. L. CHAPIN.

Subscribed and sworn to before me this 8th day of August, A. D. 1872.

[SEAL.] D. HARRY HAMMER,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. W. H. Bradley, clk.

Affidavit of N. H. Sherburne, referred to in the foregoing certificate of evidence, and used in case No. 3.

Circuit court United States, northern district of Illinois.

495, 496 HENRY W. FULLER *v.* HERMAN B. GOODRICH. } In equity.

Affidavit for defendant.

CITY OF CHICAGO,
County of Cook, State of Illinois, ss:

N. H. Sherburne, being duly sworn, deposes and says that he resides in Elgin, Illinois; that he is a solicitor of patents and a practical mechanic; that he has an office in Chicago, Illinois; that he is thoroughly acquainted with the art of sewing-machines, their mechanism and attachments; that he has been examined as an expert in patent cases.

Deponent further says that he has examined and is perfectly familiar with the re-issued letters-patent No. 3218, granted to Henry W.
497, 498 Fuller, the said complainant, assigned by mesne assignment of Israel M. Rose, for an improvement in tuck-creasing attachments for sewing-machines; that said improvement consists of a mechanism embodying the following combination of mechanical parts, viz: A base-plate, to which is permanently attached a standard rising upwards from the said plate; to this standard is hinged a lever, extending forward to and communicating with the needle-bar of the machine. A flat spring is vertically attached to the said base-plate slightly forward of the standard and is bent to a horizontal position at a point below the lever and extending forward to a point near the forward end of the same, and is there bent downward and at an obtuse angle. To
499, 500 or near the centre of the downward-bent portion of the spring is hinged a flat, rigid bar, which, in connection with the adjacent portion of the spring, forms a pair of jaws. To the upper end of the said bar or jaw is jointed a flat, curved-spring lever, which is permanently attached to the lower side of the main lever. Attached to the base-plate is a tongue, extending from its forward end outward at right angles thereto, and in a position immediately under the jaws.

The arrangement of the several parts is such that, when in their normal position or when not positively acted on by the needle-bar, the lower extremity of the jaws or the part coming in contact with the fabric remains open and slightly above the tongue of the base-plate over which the fabric is passed; but, when positively acted upon by the descending
501, 502 movement of the needle-bar, the jaw formed of the downward-bent portion of the spring is first brought in contact with and upon the fabric, impinging the same upon the cloth-plate of the machine and against the inner edge of the tongue, and the moveable jaw impinges the cloth on the upper surface of the tongue, and by the continuous downward movement of the needle-bar the lever is further depressed, causing its spring-end to act upon the upper end of the movable jaw, moving the same upon its fulcrum, causing the lower end of said jaw to move toward the stationary jaw, seizing the cloth resting against or over the corner of the tongue, which is pinched between the jaws, forming a slight ridge upon the upper surface of the same, which forms a guide to fold the cloth parallel to the line of stitch.

503, 504 Deponent further says that he has examined and is familiar with the tuck-creasing attachment manufactured by H. B. Goodrich, defendant in this case; that the said device was secured to the said defendant and one Wm. E. Barnum, by letters-patent dated January 2d, 1872, and that the said device is unlike that of the plaintiff in its construction, mode of operation, and the result attained, except that both are operated automatically by the needle-bar of the machine, and each have their upper and lower parts connected and together adjustable relative to the needle for forming folds of different width, and that the device of the defendant consists of the following combination of mechanical parts, viz: A base-plate provided with a longitudinal groove or channel formed in its lower surface, and within which is loosely
505, 506 fitted a flat metal plate, so arranged as to admit of a longitudinal sliding movement. The forward end of this plate is bent in a U shape, forming a hook, the upper portion of which extends backward over the upper surface of the base-plate, and slightly above the same. A flat metal strip is permanently attached to the rear end of the base-plate, and extends horizontally forward to a point near the forward end of the said base-plate, and slightly above the same. This strip is so arranged as to allow the upper portion of the hook to pass over the same, and in close proximity thereto when said plate is moved backward. To the rear end of the base-plate is permanently attached a standard, to which is hinged an arm extending forward to a point
507, 508 near the forward end of the said plate. This arm is attached to the needle-bar by means of a loop or eye through which the needle passes, and is provided at its forward end with a spring-pressure pivot, so arranged as to bear upon the forward end of the metal strip when said arm is depressed by the descending movement of the needle-bar. To the rear end of the said arm is attached a vertical lever, which is jointed to the rear end of the sliding-plate. A coiled spring is attached to the said standard, and communicates with the arm, by which the said arm is automatically raised from contact with the metal strip as the needle-bar ascends. This device is used by passing the fabric over the end of the hook and base-plate, and under the metal strip, and the arrangement of the parts is such that when in their normal posi-
509, 510 tion, or when not positively acted on by the needle-bar, the hook is forward of the end of the base-plate and metal strip, and the pivot above the fabric; but when positively acted upon by the descending movement of the needle-bar, the hook is moved backward, which

seizes a portion of the fabric and carries it backward over the end of the metal strip, forming a fold over the end of said strip; and as the said hook has reached the limit of the backward movement, the further depression of the said arm by the downward movement of the needle-bar brings the pivot upon the edge of the fold, compressing the same between its end and the upper surface of the metal strip, forming the said fold parallel with the line of stitch.

Deponent further says that it will be seen that the device of H.
511, 512 B. Goodrich now at issue in this case is constructed on a different principle from that of the Rose patent; that no part of its mechanism corresponds in form or mode of action; that the spring on the Rose patent acting to open and lift the jaws from contact with the fabric is so shaped as to form a part of the said jaws, and would be inoperative without the curved-spring lever and lever, each part being necessary to the action of the others, while in the Goodrich device the spring acting to automatically left the pivot from the fabric is a separate piece and so arranged as to have a positive action upon the arm, the arm acting to move the hook forward to receive the fabric. This principle, that
513, 514 is to say, the lifting of the upper part of the marking-device from contact with the fabric automatically by means of a spring, is well known to the art and was at the time of the issuing of the original Rose patent, the same being found in the patent to C. D. Wheeler of February 14th, 1860, No. 27179 for a marking guage for sewing-machines, the spring being used to perform the same function. This principle is also common in other devices, in which one part is automatically elevated from contact with another by means of a spring, the same being found in patent to John Andrews May 30th, 1838, and A. Bailey, June 20, 1840, for mortising-machines. It is further seen that in the Rose device a ridge is only formed on the upper surface of the cloth by
515, 516 means of jaws which open and close at intervals to seize and pinch the same when at rest, and then release it as the same is moved by the feeding-mechanism, while in the Goodrich device the fabric is first folded over the end of the metal-strip by means of the backward movement of the hook, and after the fold is made the same is compressed between the end of the pivot and metal strip. It is still further seen that in both the Rose and Goodrich patents the upper and lower parts are connected and are together adjustable with relation to the needle-bar, forming folds of different widths. This principle is well known to the art, and was at the time of the issuing of the original Rose patent, the same being found in the patent to C. D. Wheeler of Feb-
517, 518 ruary 14th, 1860, No. 27179. In this the upper and lower part is connected and are together adjustable relative to the needle and for the same purpose.

Deponent further says that the Rose device, when made in accordance with the model, would be impractical, as it would not form a ridge on heavy or starched fabrics. The arrangement of the stationary jaw is such as to draw the cloth tightly over the tongue, thus preventing the movable jaw from seizing the same; while in the Goodrich device the arrangement of the hook is such as to insure the seizing of the cloth at every action of the same and upon all kinds of fabric. It is further seen that jaws arranged to seize and pivot the fabric, for the pur-
519, 120 pose of forming a ridge or mark thereon and then releasing the same is found in the Rose patent, but such principle is well know to the art, and was at the time of the issuing of the Rose patent, the same being found in the patent of Henry W. Fuller of June 5th, 1860, the only difference being a slight change in the form of the pinching sur-

aces, and that in the Fuller patent the jaws are arranged upon opposite sides of the fabric, while in the Rose patent the jaws are made to act upon the upper surface of the same; therefore, the forming of ridges in cloth was not new at the time of the issuing of the said Rose patent. From the above description of the Rose and Goodrich devices it is found that with the Goodrich a complete fold is formed in the fabric; while with the Rose device a ridge only formed, which shows
521, 521 that the result is unlike; also that their principles of construction and mode of operation are not in any way identical, only in their adjustment relative to the needle and their attachment, i. e., action by th needle-bar.

N. H. SHERBURNE.

Subscribed and sworn to before me this 20th day of August, A. D. 1872.

[SEAL.] A. E. GUILD,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. W. H. Bradley, clk.

Affidavit of Edwin J. Cubley, referred to in the foregoing certificate of evidence, and used in case No. 3.

Circuit court of the United States, northern district of Illinois.

HENRY W. FULLER
v.
HERMAN B. GOODRICH. } In chancery.

523, 524 STATE OF ILLINOIS,
County of Cook, City of Chicago, ss:

Edwin J. Cubley, being duly sworn, deposes and says that he is 32 years of age; that he resides in Chicago, Illinois; that he is an engineer and machinist; and that he is now, and for several years has been, engaged wholly as a manufacturer of sewing-machine attachments, but has no interest in Yentzer's patent tuck-marker or the sale of the manufactured article, as he manufactures the same under contract only; that he has frequently been examined as an expert in patent sewing-machines and other patent cases.

Deponent further states that he has examined and is familiar with the Rose patent, number 40084, dated Sept. 22d, 1863, re-issued number 3218, dated Dec. 1st, 1868, and also with the Barnum patent,
525, 526 assigned to the defendant, numbered 122352, and dated , the patents in question in this case, and I do not consider them at all similar in mechanism, construction, mode of operation, or principle, although the result obtained in both is the same. The Rose patent consists, first, of a base or bed-plate fastened to the bed-plate of a sewing-machine with a thumb-screw through an elongated hole or slot, allowing it to be adjusted to the width of tuck desired; second, an upright standard fastened to the right end of the bed-plate, at the top of which is fastened a joint-arm extending to the left end, passing under some projection of the needle-bar of the sewing-machine, which, in its descent, causes it to press on a spring, operates a pair of jaws, which are connected at left end of a spring-lever, which is fast-
527, 528 ened at the right end of a bed-plate, and which spring-lever raises the uppers or jaws from the goods while the goods are

being fed forwards, the jaws being joined together by a jointed clamp in the center, one of them being permanently fixed to or a part of the spring-lever before mentioned, the other connected with the spring from the jointed lever, which, when the jointed lever is forced down upon the goods, cause the loose jaw to grasp a small portion of the goods, and, forcing it up against the other jaw, forms a pinch or crease, a continuous crease parallel with the line of sewing. This tuck-marking attachment does its marking wholly on the upper side of the goods, the plate running under the jaws in this device acting merely as a protec-
529, 530 tion to the bed-plate of the sewing-machine, as, in my opinion, it would work equally as well on the bed-plate of a sewing-machine so far as making a mark or crease is concerned.

Deponent further says that the mode of construction of the Barnum or Goodrich patent is the bed-plate fastened to the machine by a thumb-screw and elongated slot having fastened to it at its right end an upright standard, to which is fastened a short lever running down to the bed-plate of the tuck-marker, to the lower end of which is fastened a sliding piece or plate having a hook bent over for the purpose of drawing the goods up over the end of another flat piece of metal which lies on top of the goods and which is marked with a scale of inches for determining the width of the tuck desired. The short lever
531, 532 before mentioned has also fastened to it, a short distance from its upper end, a long lever running parallel to and over the hook sliding plate and graduated top plate before mentioned, to which is fastened a movable clasp through the end of which a hole is made for the passage of the needle of the sewing-machine. The long lever also has a spring near where it is fastened to the short lever which lifts it up from the goods while in the process of being fed along, and at its extreme left end has a punch or hammer which when the lever is forced down presses the fold of the goods formed by the hook before mentioned; thereby making a crease or mark, the continuation of which forms a line or crease parallel with the line of sewing, the hook
533, 534 having a lateral motion from the action of the lower end of the short lever, which in turn is moved by the long lever and that by the action of a needle-bar. This tuck-marker also has a gauge made of a flat piece of metal lying on the top of the bed-plate of the tuck-marker, and held in its position by the same screw as the tuck-marker, through an elongated hole or slot for the purpose of determining the distance of the stitching from the folded edge of the goods, and which is also fastened to the bed-plate of the tuck-marker by a large-headed rivet which passes through a long slot in the gauge and is riveted or fastened to the bed-plate.

Deponent further says that he is familiar with, having exam-
535, 536 ined, the C. D. Wheeler patent No. 27179, dated Feb. 14th, 1860, and finds that it uses a spring-arm to free the upper marker from the goods while in the act of feeding or moving the goods along; that it uses a marker on both the upper and under sides of the goods, consisting of a notch beneath the goods and a point above the goods by means of which point the goods are forced into the notch in its descent, and the continued motion of which forms a crease as the goods are fed or moved along; that the markers are permanently fixed together, and not adjustable to each other, and is adjustable as a whole in relation to the width of the tucks, and provided with a scale for determining the width of the same.

Deponent further says that mechanical devices embodying the prin-

ciples of a notch and blade in machinery for various manufact-
537, 538 uring and *and* domestic purposes have been known to the art and in public use for more than fifteen years past, and in like manner devices for pinching, and neither is a new invention. Deponent would refer for examples of the former various mechanisms and machines or devices for creasing sheet-iron in stove manufactuaries, tin and other metals in the manufacture of tin-ware, tea-pots, and coffee-pots, and other table-ware, by means of a blade on the periphery of a wheel working in a groove or notch; also a fluting mechanism, for doing up and fluting parts of ladies' dresses, and swedge-blocks in foundries, &c. In the latter, the pincers, nippers, tweezers, and like devices for bending
and creasing metals are common instances. Complainant did
539, 540 not invent the idea or principle, but simply a device or mechanism of his own for applying a well-known principle and process to tuck-markers as an attachment to sewing-machines.

EDWIN J. CUBLEY.

Subscribed & sworn to before me this 17th day of August, 1872.
[SEAL.] SIMEON W. KING,
Notary Public.

(Endorsed:) Filed Sept. 2, 1872. Wm. H. Bradley, clk.

541, 542 NORTHERN DISTRICT OF ILLINOIS, *ss:*

I, William H. Bradley, clerk of the circuit court of the United States for the northern district of Illinois, do hereby certify the foregoing to be a complete transcript of the record and proceedings had in said court in the matter wherein Henry W. Fuller and Isaac W. Barnum were the complainants and Enoch S. Yentzer and Walter Scates were the defendants in suit on the chancery side of said court as the same appears from the files and records of said court now remaining in my custody.

In testimony whereof I have hereunto set my hand and affixed the seal of said court at Chicago this 29th day Sept., 1874.

[SEAL.] WM. H. BRADLEY, *Clk.*

543 UNITED STATES OF AMERICA, *ss:*

In the supreme court, of the October term, A. D. 1874.

HENRY W. FULLER AND ISAAC W. BARNUM
vs.
ENOCH S. YENTZER AND WALTER SCATES.

Tuck-creaser. Patent case I.—Appeal in equity from the northern district of Illinois.

Assignment of errors.

And now come the said appellants by Charles C. Bonney, their counsel, and say that in the proceedings, orders, and decrees in favor of the said appellees, which are contained in the foregoing transcript of
544 the record of the cause, there is manifest error in the following among other things, to wit:

First. The said circuit court erred in dismissing the cause for want of equity.

Second. The said circuit court also erred in decreeing costs against said appellants and in favor of said appellees.

Third. The said circuit court also erred in not decreeing that the said

appellees, defendants in the said court, are guilty of infringing the letters-patent of the said appellants, the complainants therein.

Fourth. The said circuit court also erred in not awarding a perpetual injunction against the said appellees as prayed for in the bill of complaint.

Fifth. The said circuit court also erred in not decreeing that the
545 said appellants are entitled to recover damages from the said appellees for such infringements, and in not awarding to said appellants a reference to one of the masters in chancery of the said court to inquire of such damages and report the same to be decreed to said appellants.

Sixth. The said circuit court also erred in entering the order, a copy whereof is contained in said transcript, whereby said appellants were restrained from prosecuting suits in other courts of justice against other infringers of their said letters-patent.

Seventh. The said proceedings, orders, and decrees, so far as the same are in favor of said appellees and against said appellants, are otherwise manifestly erroneous and contrary to the law of the land.

546 Wherefore the said appellants pray that for the errors aforesaid, the final decree of the said circuit court dismissing the said cause for want of equity, and the said order of the said circuit court restraining the said appellants from prosecuting suits against other infringers of their said letters-patent in other courts of justice, and the other proceedings, orders, and decrees in favor of said appellees and against the said appellants in said transcript of the record contained, may be annulled, reversed, and altogether made as nothing, and that this cause may be remanded to the said circuit court with directions to enter such orders and decrees therein in favor of said appellants as are prayed for in their said bill of complaint, and that they may be
547 restored to all things which they have lost by reason of the errors aforesaid, &c.

CHARLES C. BONNEY,
Sol. and Counsel for Appellants.

Supreme Court of the United States.

HENRY W. FULLER ET AL.
vs.
ENOCH S. YENTZER ET AL. } In equity.

And afterwards, to wit, on the first Monday of October, A. D. 1874, came the said defendants, by Walter B. Scates and Henry C. Whitney, their solicitors, and say that there is no error either in the record or proceedings aforesaid, or in the rendering of the decree for dismissing the bill aforesaid; and they pray that the said Supreme Court may proceed to examine as well the record and proceedings aforesaid as the matters aforesaid assigned for error; and that the judgment and order of dismissal aforesaid, in form aforesaid given, may be in all things affirmed, &c.

WALTER B. SCATES,
HENRY C. WHITNEY,
Sols. & of Counsel for Appellees.

548 *Opinion.*

The following is the report of the oral opinion of the circuit judge in

these cases, given with the models before him, and which are referred to in the opinion.

Opinion delivered June 10, 1874.

These three cases were argued upon the motion for a preliminary injunction, and I then declined to issue the injunction. They afterwards went to proofs and were argued upon final hearing, and having given them all the consideration which I have been able, in the midst of other engagements, I remain substantially of the same opinion as when the motion for an injunction was argued, having come to the conclusion that the plaintiffs are not entitled to the relief they ask. The cases are by no means free from difficulty, but I will state the reasons why I have come to this conclusion.

I have no doubt of the validity of the two patents under which the plaintiffs claim—the first patent of Fuller issued in 1860, and the other, what is called the Rose patent, issued in September, 1863, and re-issued in December, 1868, and of which Fuller is the assignee. The original patent of Fuller, so far as it is material to consider it in connection with the questions involved in this case, was for a device for creasing and tucking cloth by means of a notch and blade. Here is the original device of Fuller, (indicating;) it was constructed in such a way as to be attached to the bed-plate of the sewing-machine, and the special device by which the creasing was performed was operated by means of the needle-bar. The notch might be above or below. The result was of course substantially the same, and it could be arranged in front of the needle or behind it, according to the function that it was required to perform.

The first question to be determined is: What is the extent of the invention of Fuller? He did not invent the notch and blade; that was an old device; nor springs; they also were old.

All that he invented was the application of the notch and blade, the springs, and the various other parts of the mechanism to the sewing-machine. He certainly could not claim the power of the needle-bar in all its various applications.

All that he could claim, and I think all that his patent properly construed can be considered to cover, is the particular device which
549 he adapted in its application to the bed-plate of the sewing-machine and to the needle-bar. Otherwise, we would have to hold that wherever springs or the notch and blade were applied to the needle-bar, or any other old appliance was taken by which the power of the needle-bar was used in the construction and operation of a creaser, his device would cover it. That, certainly, cannot be the proper construction of his invention. It is only the special mechanism which he has devised in its application to the needle-bar and the other parts of the sewing-machine by which the result was obtained. The difficulty arises in the application of the invention. It is natural always, where inventors have discovered some special device or mechanism by which a useful result is obtained, and in the progress of the art various modifications are made, or new ones are invented, which produce the same result in greater or less perfection, to attempt to bring all subsequent discoveries within the scope of their device. It is perfectly right, where any device is subsequently used which may be said fairly to come within the principle of the original invention, that the party should be protected; but it would be wrong to stretch an invention beyond the legitimate bounds of the discovery, so as to exclude all other inventions within the same field of operations. For instance, in this case it would be obviously an unsound doctrine to hold that no one else could take the notch

and blade or springs, in whatsoever form they might be used, and apply them to the bed-plate and to the needle-bar of a sewing-machine.

Wherever any other person subsequently takes what may be substantially the same device or the same mechanism and attempts to apply it to the needle-bar and to the bed-plate of a sewing-machine, he may be said to be within the invention which Fuller first gave to the world.

As I understand the views of the plaintiffs, there is an effort in this case to bring within the scope of Fuller's device what is not legitimately within the true boundaries of that discovery, because we have to adopt substantially that rule in order to sustain the view of plaintiffs' counsel, and to say that no one else could take the springs or apply the power of the needle-bar or attach a form of notch and blade for creasing to the bed-plate without infringing Fuller's device.

So in relation to the Rose patent, of which Fuller is the assignee, and the validity of which of course he cannot question, and the value of which is not controverted.

It is admitted that Fuller's invention does not bring within its scope all forms of tuck-creasers when applied to the needle-bar and to
550 the bed-plate of the sewing-machine; otherwise, Rose's invention must fall. But the ground upon which that can stand is, that it is substantially a different device. In Fuller's mechanism the act of creasing is performed as has been stated, and a model of which is before me. Under the Rose patent, and by the mechanism which he devised for creasing, there is a different arrangement of the various parts. There is no notch and blade as in the Fuller patent, but there are springs. Here is a model of the Rose device, (indicating.) It is attached to the bed-plate of the sewing-machine. It is operated by the power of the needle-bar. There is a spring attached to a staff and another which form together the jaws, which pinch the cloth in this way (indicating) as it passes through the sewing-machine. This presses the upper spring, bring the jaws together, and the movement of the needle-bar down places the jaws upon the cloth, which passes between them and an attachment of the bed-plate. It makes a crease in this way upon the cloth; and it is said to have an advantage over Fuller's device in that it does not perforate or destroy or even impair the texture of the cloth. Now, the same principle, I think, must be considered applicable to the device of Rose as to that of Fuller, namely: he must be confined to the special mechanism which he has invented and which he attaches to the sewing-machine, and by means of which he performs a crease in the cloth, and thus enables the operator to make the tuck.

It will be observed that Rose attached his device to the bed-plate of the sewing-machine and operated it by means of the needle-bar, as Fuller had done; and there was nothing in Fuller's to prevent the operation of the Rose device.

Now, that being so, it simply becomes a question, when one uses any particular form of mechanism, whether or not, so far as these two patents are concerned, it comes within either of them. The theory is to bring all other forms of mechanism by which a crease is made and a tuck formed within these two inventions of Fuller and Rose; and it is said these have been so far the only two known methods of forming the crease. Everything that is legitimately within them is of course within the invention of these two patentees; but it cannot be said that, because they form the crease by the notch and blade and by the pincers, *that* no one else can form a crease by some other device different from that of Fuller or of Rose. In other words, that they have patented a result or an effect, and not the particular form of mechanism which they have set

forth in their specifications. If this is the true construction of
551 these patents, then we shall not have so much difficulty in determining whether or not the defendants have infringed the two devices invented by Fuller and Rose.

To take the first case. The ground assumed by the plaintiffs is that the tuck-creasers manufactured by Yentzer and Scates infringe the first claim of Fuller.

The first claim of Fuller is:

"The forming of one, two, or more creases in cloth, by means of markers on opposite sides of the cloth, which markers are the notch and blade or the notch and point, one connected with the bed of the machine and the other operated simultaneously with the vibrations of the needle-bar in a sewing-machine."

As I have said, the notch and blade are old; the springs are old. It may be true—it is not necessary to controvert it in this case—that Fuller was the first person to apply the notch and blade and the springs to a sewing-machine so as to form a crease, but I think that no one can take something old and apply it in a new way or a new form so as to produce a particular result and be protected beyond the particular way or form or device and the application which he has made. Otherwise, as I have already said, any one could take an old device and make a new application of it and prevent all other persons from taking the same and making another and different application by which a like result is brought about. The question is whether Yentzer and Scates have done that. Now, here is the model of the Fuller patent, (indicating.) Here is one form of the Yentzer device and a tucker which they have manufactured. Here is the spring and the power of the needle-bar applied to the spring. Here is—if you choose to call it so—the notch and blade attached to the bed-plate. But the question is, whether the springs and notch and blade are used in the same way as in the Fuller patent. Fuller covers by his own special mechanism anything that is fairly within it. He does not include other and different devices or mechanism by which the same result is reached; and I think there may be fairly said to be a difference—such a difference as does not bring it within the mechanism of Fuller; and so it may be said of the other forms of manufacture by Yentzer and Scates.

In the second suit, which is also against Yentzer and Scates, the ground assumed by the plaintiffs is that the creasers manufactured by
552 them infringe the 6th claim of the Rose patent, which refers to what is called the "unity of adjustment."

That claim is for "a tuck-creasing mechanism such as described, having its upper and lower parts connected and together adjustable as to its relation to the needle of the sewing-machine and operated by the sewing-machine substantially as set forth."

If the view of the plaintiffs' counsel as to the construction of the Rose patent is correct, then all these various devices would be infringements of that claim. If, in other words, Rose has patented every form of mechanism by which a creaser is attached or adjusted to the sewing-machine, and by which unity of adjustment is brought about, then there could be no question but the defendants have all infringed; but I think that the view of the counsel of the extent of this claim is not correct. I think the claim is narrower.

It is insisted on the part of the plaintiffs that this patent cannot be restricted to a unity of adjustment in a tucker of the mechanism such as described in the Rose specifications. I think it is so restricted. Let us see. It is said that in the claim the words are used "a tuck-creasing

mechanism," and that it means, therefore, any tuck-creasing mechanism. "A tuck-creasing mechanism having its upper and lower parts connected and together adjustable." If that were the claim and it could stand as the invention of Rose, then it might be the defendants would all infringe; but that is not the claim. It is qualified; it does not mean every kind of tuck-creasing mechanism having its upper and lower parts connected and together adjustable, but any tuck creasing mechanism substantially such as described, which words are very important and essentially qualify the preceding words. It must, therefore, mean the kind of mechanism, mechanism such as is here described—not any form of mechanism, however different it might be, but this particular form of mechanism, or that which is substantially the same.

We cannot strike out material words from the claim itself and enlarge the meaning of the invention, but we must limit it fairly, I admit, within the language of the claim. It is not the kind of mechanism that is substantially like that, (showing one model,) but any mechanism substantially like that, (showing another model,) which is claimed in the sixth claim of the Rose patent, and no other, in my opinion.

553 The third suit is by Fuller as the assignee of the Rose patent and against Goodrich, and it is alleged that Goodrich infringes the first, second, fifth, sixth, and eighth claims in the Rose patent.

There seems to be, I would remark, in forming the claims under the Rose patent a disposition to expand them unnecessarily. For instance, the first and second claims are substantially the same; one, to be sure, speaks of the mechanism by which the crease is formed, and the other of the method of pinching the fabrics by which the crease is formed; but, of course, they resolve themselves into substantially the same thing. The first claim is: "The mechanism substantially as herein described for forming a ridge or ridges on fabrics to be afterwards folded in the line of such ridges." That is this device—a model of which I now hold in my hand—the mechanism substantially as it exists here.

The second claim is the method of nipping or pinching the fabrics to form ridges or creases thereon, by means of jaws opened and closed at intervals to seize and pinch the fabric when at rest, and then release it as the same is moved along by the feed in the sewing-machine. But still it means the method produced or seen in this form of mechanism which is referred to in the first claim, and the only difference, therefore, between the first and second claim is the one speaks of the device as the mechanism and the other the method by which that mechanism produces the crease.

The fifth claim is the combination of the creasing device or devices of the tuck-marker with the jointed lever, substantially as and for the purposes set forth.

The sixth claim I have already referred to and considered.

The eighth claim is the combination of the lever and spring with the tuck-marker, having upper and under parts connected and together adjustable as specified substantially and for the purposes set forth. Now, it is claimed on the part of the plaintiffs that this form of device used by Goodrich is an infringement, because it is said it is substantially this device of Rose's, (indicating,) and that the crease is formed in substantially the same way, and that the parts are adjustable in the same manner; that is to say, that the mechanism of the parts is the same, because, as I have said, that I consider an indispensable element in the true construction of the Rose patent. I do not so regard it. Limiting the Rose patent to the substantial form of mechanism which he

554 has described and the manner in which it operates and is at-

tached to the bed-plate of the sewing-machine and the needle-bar, I think there is a substantial difference, such a difference between these two devices as is within the true construction of the patent law; and to hold otherwise is to leave subsequent inventors within very narrow bounds in the same common field of discovery, and would, therefore, be attended with very serious consequences. If in any part of the mechanism of Fuller or of Rose there was some great novel principle or discovery which no one else could use without infringing that part, then it might be said that these cases of the defendants were fairly within its operation; but that would bring it within the principle, for example, of Howe's discovery in relation to the operation of the needle and of Wilson's feeding device. There is something connected with Howe's discovery which no one else can use without our saying at once that, no matter in how different a form we put it, still Howe's invention is there. So in relation to the feeding device of Wilson. No matter how much you may change it or modify it, still it is Wilson's feeding device. If that principle were applicable to these cases then I should have no hesitation in holding there was an infringement.

There are two modes of construing the patent law, and it may be said, perhaps without any disrespect, that there are some judges who adopt one mode and some another. There are those who are inclined to expand, beyond legitimate boundaries, the invention of the patentee. There are others who restrict it within somewhat narrow bounds, holding that the invention of the patentee must be limited by the particular mechanism and the application by which the result is attained, thus leaving the field of discovery open to all persons to explore it beyond the range of that particular mechanism and its application. I confess myself to be one of the latter class of judges, and hold that parties should be limited rather closely within the claims of their patent and the description of the particular mechanism and the application which they have made by which the result is produced. Of course a change of form will not change the principle.

A mechanical change does not prevent an infringement. In looking at Goodrich's device as I have said, it seems to me to be essentially different from the Rose patent, and therefore I hold that in that case, as in the others, there is no infringement. In these cases all the defendants, or Yentzer and Goodrich under whom these defendants are manufacturing, claim to be protected by patents duly issued. Of course if
555 those patents are for something which has been previously discovered and patented to other parties, the patent is no protection, but it is at least evidence of the view which the Patent-Office has taken of the rights of the defendants.

NORTHERN DISTRICT OF ILLINOIS, *ss:*

I, William H. Bradley, clerk of the circuit court of the United States for the northern district of Illinois, do hereby certify the foregoing to be a true copy of the opinion of Hon. Thomas Drummond, judge of said circuit court, in the cases mentioned in the caption, and before whom said causes were heard, as the same appears from the decision filed with the papers in said causes and now remaining in my custody.

In testimony whereof I have hereunto set my hand and affixed the seal of said court this 2nd day of October, A. D. 1874, and of our Independence the 99th year.

[SEAL.] WM. H. BRADLEY, *Clerk.*

It is stipulated and agreed that the foregoing opinion, or any duplicate thereof, shall be a part of the record in the three cases named on the title-page hereof, on the appeal of said cases to the Supreme Court of the United States, as fully as though said opinion had been annexed to and transmitted with said record to the clerk of said court, and he is hereby authorized to annex and print said opinion as a part of the record accordingly in each of said cases.

C. C. BONNEY,
Counsel for Complainants & Appellants.
SCATES & WHITNEY,
Solicitors for Respondents & Appellees.

(Indorsement on cover:) No. 160. Henry W. Fuller and Isaac W. Barnum, appellants, vs. Enoch S. Yentzer and Walter Scates. N. Illinois C. C. U. S. Filed 15th October, 1874.

IN THE SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, A. D. 1876.

160. HENRY W. FULLER and ISAAC W. BARNUM, *Appellants*,
vs.
ENOCH S. YENTZER and WALTER SCATES, *Appellees*.

161. SAME APPELLANTS *vs.* SAME APPELLEES.

162. SAME APPELLANTS *vs.* HERMAN B. GOODRICH.

Filed October 15, 1874.

STIPULATION TO IDENTIFY DOCUMENTS.

It is stipulated and agreed that the printed book hereto annexed is the history of the tuck creasers mentioned in the certificate of evidence in the above entitled appeals, and that the copies of the Letters Patent on which said suits were brought, or which are otherwise mentioned therein, may be used and read on the hearing of said appeals in the said Supreme Court, in the same manner and with the same effect as the original Letters Patent or certified copies thereof might be; and that any such letters or copies thereof, or other documents, may be identified by reference to said printed book and the documents contained therein; and that no certificate or identification of any such letters, or other documents by or under the hand of the Judge or Clerk of the Circuit Court shall be required or need be produced for the proper identification of such letters or documents, for that the same and the contents thereof are so familiar to the parties and their counsel, and are so fully set out and referred to in the transcripts filed, that no mistake or injury to any party can arise for the want of any such certificate or identification.

Witness the counsel of the parties aforesaid respectively.

CHARLES C. BONNEY,
Counsel for Appellants.
SCATES & WHITNEY,
Counsel for Appellees.

No. 28,633.

The United States of America—To all to whom these Letters Patent shall come :

Whereas, Henry W. Fuller, of Brooklyn, New York, has alleged that he has invented a new and useful improvement in mechanism for marking cloth in sewing-machines (he having assigned his right, title, and interest in said improvement to himself and Anthony W. Goodell, of said Brooklyn), which he states has not been known or used before his application ; has made oath that he is a citizen of the United States, that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used ; has paid into the treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose :

These are therefore to grant, according to law, to the said Henry W. Fuller and Anthony W. Goodell, their heirs, administrators, or assigns, for the term of fourteen years from the fifth day of June, one thousand eight hundred and sixty, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said Henry W. Fuller in the Schedule hereunto annexed, and is made a part of these presents.

In testimony whereof I have caused these Letters to be made Patent, and the seal of the Patent Office has been hereunto affixed. Given under my hand at the city of Washington, this fifth day of June, in the year of our

Lord one thousand eight hundred and sixty, and of the independence of the United States of America the eighty-fourth.

[L.S.] JACOB THOMPSON,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

PHILIP F. THOMAS,
Commissioner of Patents.

THE SCHEDULE REFERRED TO IN THESE LETTERS PATENT AND MAKING PART OF THE SAME.

To all whom it may concern :

Be it known that I, Henry W. Fuller, of Brooklyn, in the county of Kings, and State of New York, have invented, made, and applied to use certain new and useful improvements in means for marking cloth in sewing machines, which I denominate the "Universal Marker for Plaiting and Tucking," and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making part of this specification, wherein

Fig. 1 is a side elevation, showing my apparatus, also the needle-arm and pressure-foot of a sewing machine ; and

Fig. 2 is a plan of the same with the arms removed to show the other parts.

Similar marks of reference denote the same parts. The nature of my said invention consists in a vibrating marking instrument or instruments, that move in unison with the needle so as to crease or mark the cloth at a given distance or distances from the needle, and the same not pressing on the cloth except whilst the needle is in the cloth, prevents such marking instrument obstructing the

Lord one thousand eight hundred and sixty, and of the independence of the United States of America the eighty-fourth.

[L.S.] JACOB THOMPSON,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
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Fig. 2 is a plan of the same with the arms removed to show the other parts.

Similar marks of reference denote the same parts. The nature of my said invention consists in a vibrating marking instrument or instruments, that move in unison with the needle so as to crease or mark the cloth at a given distance or distances from the needle, and the same not pressing on the cloth except whilst the needle is in the cloth, prevents such marking instrument obstructing the

cloth in its movement by the feed, and hence said mark can be made at any distance from the sewing and the cloth remain smooth. By the use of a point vibrating in unison with the needle and acting on the upper surface of the cloth in connection with a notch or an elastic surface or pad below the cloth, a crease will be made whose ridge is below the cloth; and by the use of a point below the cloth, and a vibrating notch or elastic pad above, a crease will be formed whose ridge is on the upper side of the cloth; and by the use of one, two, or more of these up or down markers, or one up and one down marker the crease or ridge can be made exactly at the desired distance from the line of sewing and either upwards or downwards, according to the way in which the cloth is to be folded over for the after-operations; and on performing another line of sewing the crease or creases are made for the next fold. This device is especially useful in all kinds of tucking, and in plaiting shirt bosoms and similar work.

By the use of a vibrating pencil or chalk, a line of marks is made by which a second line of stitching is guided, the same being useful in quilting or performing any straight or curved or parallel lines of stitching. It will be evident that if the marking points are at right angles to the feed from the needle the marking must be a given distance from the sewing and parallel thereto, regardless of the curved or zigzag form in which the sewing is performed.

In the drawing, *a* represents the bed of any sewing machine, *b* is the pressure-foot, and *c* the needle-bar or arm, all of which may be of any form, and the sewing is to be performed by the needle, *d*, in connection with a shuttle-looper or any device; *e* is an arm extending from the needle-arm or bar and vibrating with the same; *f* is a pencil, chalk, or point adjusted on said arm, *e*, so that in its vibrations the point shall press upon the cloth, and consequently make a mark thereon at the distance from and parallel to the line of sewing being performed at which the second row of sewing is to be made; this is especially adapted to marking for quilting or stitching; *g* is a bar that may be attached to the presser-foot

№ 28633.

Fig. 1.

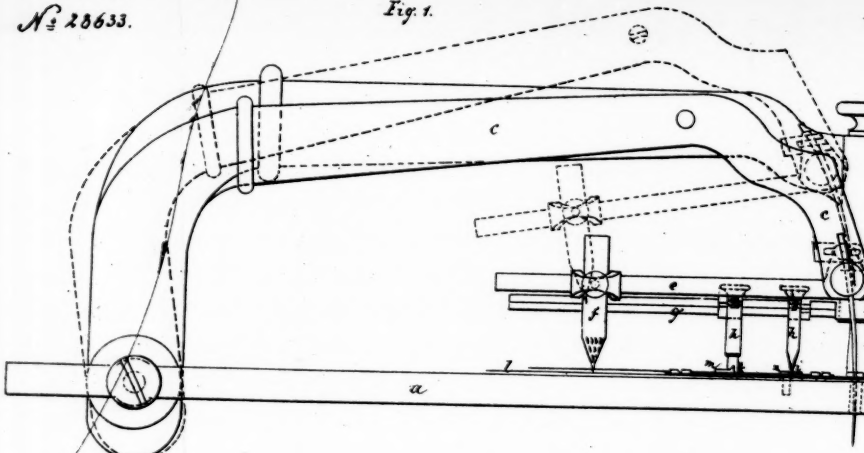


Fig. 3

Fig. 4

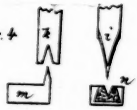
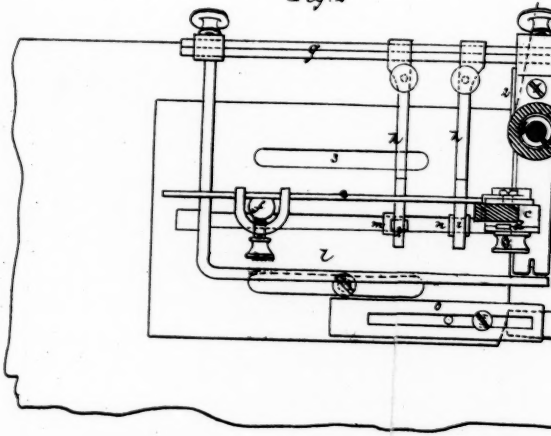


Fig. 2



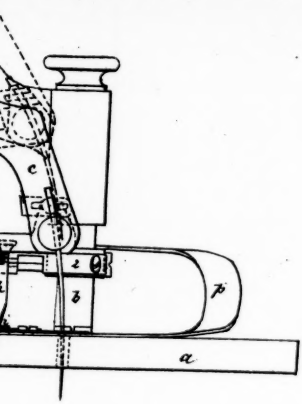
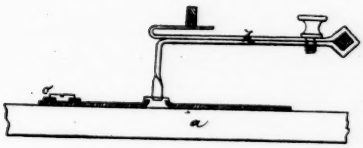
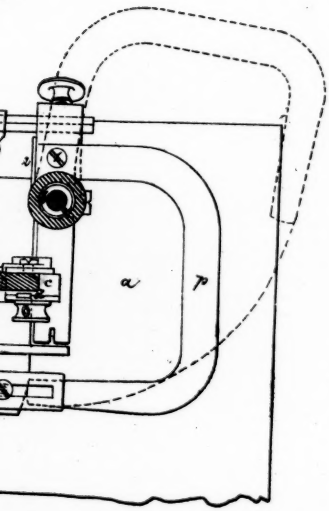


Fig. 3





so as to be raised up with it, or may be sustained in any other convenient manner; *h h* are adjnstable marking-arms that extend from the bar, *g*, and are provided one with a marking point, *i*, and the other with a marking notch, *k*. The arms, *h*, are formed as springs, so that the parts *i* and *k* are raised from the surface of the cloth except when acted on by the arm, *e*; and said arms, *h*, are also fitted with springs, taking the arm, *e*, so as to yield in case of inequality in the thickness of cloth and not interfere with the full stroke of the needle-bar.

l is a plate screwed on to the bed, *a*, and carrying the adjustable point *m*, and leather *n*, or its equivalent. The point *m* is formed somewhat similar to the point *i*, both being thin, rounded, and blunt chisel forms, so as not to injure or catch in the cloth, and this point, *m*, may be fitted to slide in a groove for adjusting the same to the desired distance from the needle, or several of these points may be formed or attached permanently on a plate at short distances apart. The leather, *n*, is also represented as adjustable, and it forms a crease into which the point, *i*, acts, and said leather may be set into a small metal holder, or it may be formed as a strip of sufficient length to comprise the distance to which the part *i* may be adjusted. The operation of this part is illustrated in Figs. 4 and 5, where the marking parts, *i*, *n*, and *k*, *m*, are shown in larger size, and the fold or crease produced in the cloth is also represented. The points *i*, *n*, produce a downward crease and the parts *k*, *m*, an upward crease, when the cloth is exposed to the action of these parts by passing between the same; and in order to give motion to these markers the bar or arm, *e*, strikes on the spring part of the arms, *h*, *h*, (see Fig. 3), pressing the surfaces together and crumping or creasing the cloth.

The drawing represents my apparatus as adapted for stitching three-ply shirt bosoms, as seen in Fig. 5, in which instance the plait folded under the cloth runs against the end of the plate *l*, as a guide, and the adjustable spring finger *o*, pressing on the plait, keeps it folded down tightly, ready to pass under the pressure-foot *b*; *p* is a swinging guide attached by the screw, 1, to the arm

carrying the bar, *g*, and acted on by the spring, 2, to keep the end of the guide within the plait and the back of the plait against the end of the plate, *l*, so that the stitching will be upon the edge of the plait with unerring certainty.

For tucking, the markers should extend on the other side of the needle-arm, and for this purpose the bar, *g*, can be fitted in any convenient manner, but where a holder or arm to the pressure-foot is used in the manner shown, the hole into which said bar sets may pass through the same and be provided with a clamping screw, so that said bar, *g*, can be inserted from the other side, and the plate, *l*, also stands on the other side of the needle, a second slot, 3, being provided for this purpose. The arm, *e*, also requires to be changed to the other side, in order to take the marking points, *i*, *n*.

It will be evident that the marking notch or point, *i* or *k*, or both, might be placed directly on the arm, *e*, and provided with a suitable spring between the bar and point. The manner of attaching the parts to the sewing machine must also be varied as circumstances may require for different characters of sewing machines or for different kinds of work to be performed, and the vibrating motion may be given to the markers by any other device beside the needle-bar.

I do not claim a gauge for spacing off the width of folds, tucks, or plaits, either in a sewing machine or applied as a separate apparatus for said purpose, but all the previous devices with which I am acquainted acted simply to perforate the goods or form a mark at a given point to which the goods had to be folded by hand; whereas my apparatus makes a complete crease in the cloth, so that the parts of the cloth when laid over each other fold down at these creases without requiring creasing by hand as a separate and pre-requisite operation.

What I claim and desire to secure by Letters Patent is, forming one, two, or more creases in cloth by means of markers on opposite sides of the cloth, one of which is connected with the bed of the machine, and the other operates simultaneously with vibrations of the needle in

a sewing machine, whereby the crease or creases are formed in the cloth itself, parallel to the line of sewing, in such a manner that the cloth is ready for doubling over at said creases for the next line of sewing as set forth.

I also claim marking a line on the surface of cloth or other material being sewed in a machine, by means of a pencil or similar article that is pressed upon the surface of said cloth at the time the needle perforates the same, and is raised therefrom when the feed takes place so as to produce a series of marks parallel to and simultaneous with the line of sewing as set forth.

In witness whereof I have hereunto set my signature this twenty-fifth day of February, 1860.

HENRY W. FULLER.

Witnesses,

LEMUEL W. SERRELL.

THOS. GEO. HAROLD.

UNITED STATES PATENT OFFICE.

HENRY W. FULLER OF BROOKLYN, N. Y., ASSIGNEE, BY MESNE ASSIGNMENTS, F ISRAEL M. ROSE.

Letters Patent No. 40,084, *dated September* 22, 1863; *reissue No.* 3,218, *dated December* 1, 1868.

IMPROVEMENT IN TUCK-CREASING ATTACHMENT FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

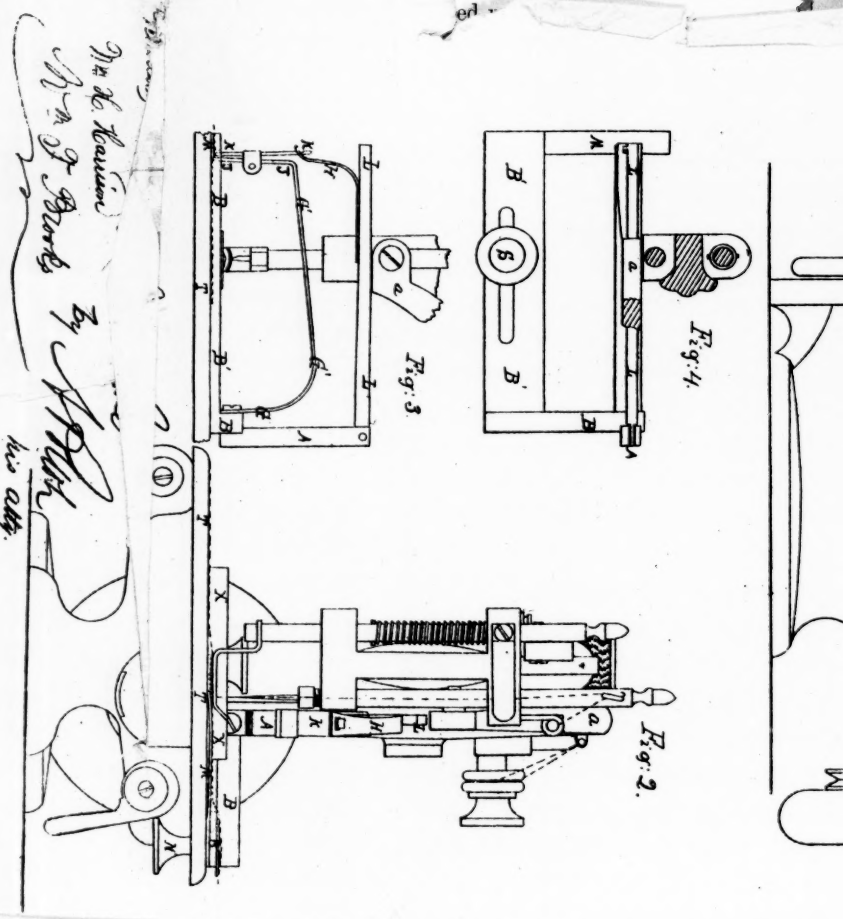
Be it known that ISRAEL M. ROSE, of the city, county, and State of New York, did invent an Improved Tuck-Marker or Creaser, and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

Previous to this invention, fabrics were marked or creased by means of a protuberance or point, and a notch or indentation caused to impinge upon the fabric from opposite sides thereof. That mode of marking or creasing is open to the objection that fine goods will sometimes be cut by the marking-operation, while on heavy or flimsy goods the crease is often unsufficiently defined, which notch and point are separately adjustable to each other, as well as to the sewing-machine needle.

By the invention herein described, marks or ridges, and, obversely, creases, are formed in the fabric by a succession of nips or pinches thereof, while it has motion imparted to it in line with the crease, in any convenient manner; but usually the feed-mechanism of a sewing-machine, for which it is intended to be used, is an attachment. And said process of nipping or pinching is designed to obviate the objections aforesaid, which are attached to other tuck-markers, and to produce a more efficient instrument.

a sewing machine, whereby the crease or creases are formed in the cloth itself, parallel to the line of sewing, in such a manner that the cloth is ready for doubling over at said creases for the next line of sewing as set forth.

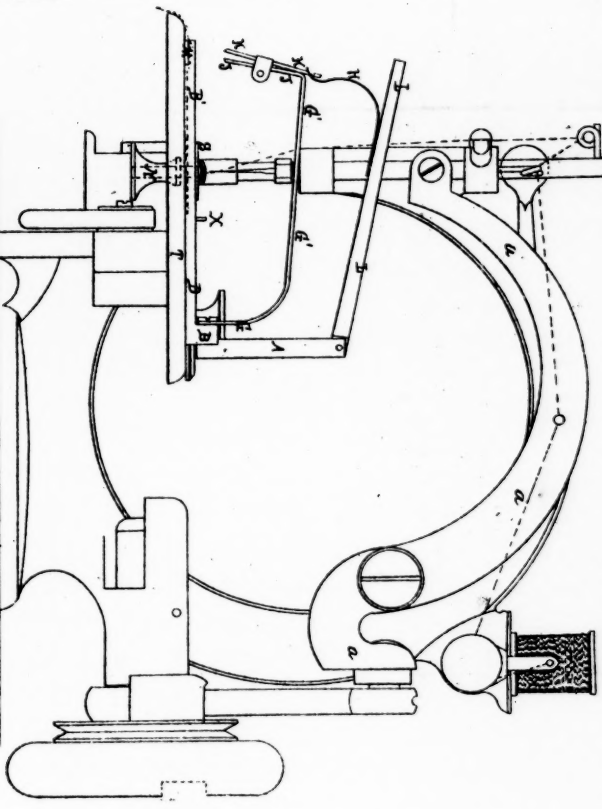
I also claim marking a line on the surface of cloth or [illegible] hine, by means of a [illegible] ed [illegible]



UNITED STATES PATENT OFFICE.

HENRY W. FULLER OF BROOKLYN, N. Y., ASSIGNEE, BY MESNE ASSIGNMENTS, OF ISRAEL M. ROSE.

Letters Patent No. 40,084, *dated September* 22, 1863 ; *reissue No.* 3,218, *dated December* 1, 1868.



No 3218 I. M. Rose. Guide & Hemmer. Fig. 1. Reissued Dec. 1, 1868.

...y a ...s mo- ...y conve- ...nism of a ...be used, is ...ng or pinch- ...foresaid, which ...and to produce a

The said invention comprises the use of jaws, which are caused to descend with more or less force or pressure on the fabric while open, and then, in being closed, are capable of seizing a portion of such fabric, and compressing the same tightly; such fabric being properly supported against the force of said jaws, and which operation being repeated while the fabric is moved along, produces the required ridge or crease, in the line of which the fabric will naturally fold, to facilitate the forming of a tuck or tucks; and

Said invention also comprises certain details of construction, arrangement, and combination to adapt tuck-markers for use in connection with sewing-machines, and forming a tuck-creasing mechanism having an upper and under part connected, and together adjustable, as to its relation with the needle of a sewing-machine, and operated by a sewing-machine.

To enable others skilled in the art to make and use this invention, an apparatus will now be described, constructed and acting in conformity with the principles thereof.

In the accompanying drawing—

Figure 1 is a side elevation of the improved apparatus for creasing fabrics, as attached to a sewing-machine.

Figure 2 is a front view of the same.

Figure 3 is a side view, showing part of a sewing-machine and the apparatus in action.

Figure 4 is a top view of fig. 3.

The marks of reference correspond in all the figures.

B is a base-plate, having an upright standard, A, firmly secured thereto, so as to form a permanent part thereof.

To the upper end of the standard is jointed a lever, L, which carries a spring-branch, H. Said branch is buckled at its lower end with a blade, K, which forms one of the jaws for seizing and crimping the fabric.

The use of the lever, jointed as aforesaid, insures freedom of motion to and from the fabric, while the stiffness of the lever prevents any lateral motion of the creasing-device, J K.

The lever is also designed to receive the force of the arm or other moving part of the sewing-machine, and transmits said motion directly to the jaws, through the spring-branch H.

The bed-plate B′ has a small upright projection, B, to which is permanently fixed a spring-blade, G′ having its front end bent downward at J, and forms a mate to the jaw K. These jaws are hinged together at *v*, and their lower ends are sharp, or serrated, in order more readily to seize the fabric.

The object of the spring G is to cause the marking-device to react after each creasing-action, and follow the upward motion of the needle-arm, in order to give room for the free insertion and removal of the work, and the spring-branch H, as seen in that figure, is made to hold the outer jaw K away from the inner one, J, when in the normal position there shown.

It is important to have the creasing-action take place as nearly as possible in front of the needle, that is, in line with the arm of the sewing machine. There is, therefore, an extension-plate, M, extending out laterally from the base-plate B, in line with the movement of the feeding-device *q*, and said plate supports the material immediately under the jaws, and receives the impinging action of said jaws thereon.

This arrangement provides for bringing the creasing-devices around or across the presser-foot *q*′, and for performing the creasing-operation in the proper location with respect to the needle.

The movement of the parts is essentially as follows:

When the lever L is moved downward toward the base-plate, the jaws will press any material lying on the bed M or T hard against it; then the downward movement of the lever L being continued, the jaws close upon, gather, and double up the fabric, compressing it between them.

From the above description it will be apparent that this apparatus employs upper and under devices on opposite sides of the cloth, to act together conjointly and produce creases in the fabric.

To use the apparatus in connection with a sewing-

machine, it is secured to the bed or cloth-plate T of the machine, by a screw, N, which passes through a slot, m', in the base-plate B'.

In some cases, by so shaping the parts of the apparatus, the ordinary "gauge-screw" S may be used.

The several parts of the apparatus are so arranged relatively, that when properly secured, the lever L is immediately under the arm a of the sewing-machine; and when the machine is operated, said arm will strike the lever L, and actuates the creaser or "tucker."

To do tucking on the apparatus with a sewing-machine, a fold is first made in the fabric by hand; the gauge X is fastened by means of the set-screw S, to make the seam the proper distance from the edge of the required tuck.

The apparatus is then adjusted by means of the screw N and slot m', in such relation to the needle p, that the distance from the needle to the jaws is at least double the distance between the needle and the gauge X.

The jaws, or upper part of the tucker, being permanently connected with the base-plate, or under part, such parts retain a fixed relationship to each other, and hence one movement or alteration of either part simultaneously adjusts the relative position of the whole tucker with respect to the needle.

When adjusted as required, the fabric is placed in the machine, with the folded edge against the gauge X, and the machine started. The lever L, when depressed by the arm a of the sewing-machine, carries down the spring-branch H, and with it the jaws K and J, to the surface of the fabric lying on the bed-plate of the tucker or sewing-machine. The bed-plate supporting the fabric immediately under the jaws, resist the impingement of the jaws thereon, and arrests their downward movement, while the same motion of the arm a being continued, the jaws close, gathering up a portion of the fabric, and pinching it.

At this juncture it may happen that the downward stroke of the arm a may be a little more than sufficient merely to complete the pinching or marking of the fabric, and in such event, the spring-branch H yields

enough to comply with such surplus motion of the arm *a* aforesaid, and mollifies and relieves any straining of the sewing-machine, easing the operation.

On the upward motion of the arm A, the jaws rise and open by the elasticity of the spring-branch H and the spring G, while the fabric is advanced by the feed-mechanism of the sewing-machine. The arm *a* then again descends, the pinching process is again repeated, and thus, as the cloth is fed through the machine, a clear and well-defined ridge is formed on the fabric by the creaser, at the same time that a seam has been sewed in the folded part thereof, forming a tuck. The cloth is next removed from the machine, and folded on the line of the ridge or crease. As the work is proceeded with, and each time a tuck is sewed on the machine, the ridge or crease for the next tuck is made.

It will be observed that in the adjustment of the tucker in line with the slot *m'*, the arm of the machine will act on the lever L at different points on the length of said lever, according to the width of tuck being formed. The application of the force of said arm is invariably made, however, directly to or over the creasing-device at the end of said lever, no matter at what point on said lever the force of the sewing-machine may be received. The result is enhanced uniformity of action of the creasing-mechanism, under all conditions and adjustments incident to its successful use.

For communicating motion from the sewing-machine to the tucker, any mode common to the art may be used.

Having thus described the invention of ISRAEL M. ROSE,

What I claim, is—

1. The mechanism, substantially such as herein described, for forming a ridge or ridges on fabrics, to be afterward folded in the line of such ridges.

2. The method of nipping or pinching the fabric, to form ridges or creases thereon, as aforesaid, by means of jaws, opened and closed at intervals, to seize and pinch the fabric when at rest, and then release it as the same is moved along intermittently by a suitable feeding-mechanism, as set forth.

3. The combination, with jaws arranged as aforesaid, for action on a fabric, of a bed-plate or plates to support the fabric, receiving and resisting the impingement of the jaw or jaws thereon, substantially as specified.

4. A pinching-mechanism, substantially as set forth, and in which the jaws are brought down in contact with and made to impinge upon the fabric while yet open, and are closed by the resistance then offered to the further descent of the jaws, substantially as described.

5. The combination of the creasing-device or devices of a tuck-marker with a jointed lever, substantially as and for the purposes set forth.

6. A tuck-creasing mechanism, substantially such as described, having its upper and lower parts connected, and together adjustable, as to its relation with the needle of a sewing-machine, and operated by the sewing-machine, substantially as set forth.

7. The spring G, for carrying the upper half of the creasing-device away from the cloth after each creasing-action, when relieved by the needle-arm, substantially as set forth.

8. The combination, with a tuck-marker, having upper and under parts connected and together, adjustable as specified, of the lever and spring, substantially as and for the purpose set forth.

HENRY W. FULLER,
Assignee of Israel M. Rose.

Witnesses :
E. B. BARNUM,
EARLE H. SMITH.

Supreme Court,

OF THE UNITED STATES.

HENRY W. FULLER, and ISAAC W. BARNUM,

Appellants,

vs.

ENOCH S. YENTZER, and WALTER B. SCATES,

No. 160

BRIEF for APPELLANTS

E. N. DICKERSON,
E. B. BARNUM,
Of Counsel.

NEW YORK:
BENJ. H. TYRREL, LAW PRINTER, 74 MAIDEN LANE.
1877.

IN THE 1

Supreme Court of the United States.

No. 160.

HENRY W. FULLER AND
ISAAC W. BARNUM,
Appellants.

against. 2

ENOCH S. YENTZER AND
WALTER B. SCATES,
Appellees.

Appellants' Brief.

This is one of three cases brought by the appellants, two of which are against the above named appellees and one against Herman B. Goodrich.

These cases were tried together in the Court below and the records in each of the cases having 3
been stipulated into all, where applicable, p. 70, fol. 293, the records certified here are substantially alike.

STATEMENT OF THE CASE.

The use of tucks in cloth for useful and ornamental purposes is probably as old as cloth itself.

A tuck is practically a loop in cloth of any desired width usually arranged in groups or clusters as in the tucked or plaited shirt bosom.

4

Prior to 1860, the only method of making tucks, so far as known, was by hand, the operator measuring the required distances at intervals on the cloth, and marking the same with pins or pencil to indicate the line where the fold should be made, upon which line the cloth was doubled and creased by the fingers. The tuck was then sewed.

The witness Chapin, (p. 68, fol. 291), speaks of a grooved board on which cambric was laid and creased by means of a paper-cutter; but whether it was used in tucking, or precisely when and
5 where it was used, does not appear, although Chapin dates it about 1857.

In 1860 one C. D. Wheeler obtained a patent, dated February 14, 1860, for a device for tucking purposes, which consisted of an arm, with a measuring scale upon it, provided with a sharp point which struck upon a soft metal surface. This device could be moved in and out of a frame work, the face of which answered the purpose of a gauge.

Wheeler's invention simply facilitated the tucking by hand, as above described, by providing a ready means of measuring and marking the dis-
6 tances upon the cloth, preparatory to creasing and folding.

This was the state of the art of making tucks at the time of the invention described in the patent in suit.

On June 5, 1860, a patent was issued to the appellant, Henry W. Fuller, and to one A. W. Goodell,

as his assignee of one half interest, for what was called a tuck creaser.

By this invention, while sewing one tuck on the sewing machine, he succeeded in making one or more continuous creases in the cloth, at any required distance from and parallel to, the line of the seam being sewed; an operation which might be repeated until the cloth was exhausted. 7

This was accomplished by the employment of a notch and point or blade, one of which rested on the bed plate of the machine, and the other was vibrated vertically by the needle arm of the machine.

The cloth being fed to the needle, passed between the notch and point, and at every downward stroke of the needle arm, and while the feed was at rest, a small part of the cloth would be forced over the point by the notch, an operation which destroyed the elasticity of the fabric at that point, and produced an indentation. On the upward movement of the needle arm, the notch and point disengaged, 8 releasing the cloth, which was then carried forward by the feed the length of the stitch.

The downward movement of the needle arm brought with it a repetition of the action of the notch and point resulting in another indentation in the cloth.

This operation repeated developed practically a continuous crease, necessarily parallel to the seam being sewed.

This was the first automatic tuck creaser ever made, so far as proofs show, and so far as is known.

The history of tuck creasers so far as Fuller was connected therewith, and on which he is and must 9 be the central figure, is given on p. 99, et seq.

THE INVENTION.

The invention by which this new result is produced, consists, *First*, In the constructing of a mechanism capable of making a crease in cloth, which did not exist at that time; and *Secondly*, in combining this mechanism with a sewing machine,
10 in such manner that it will co-operate with the sewing machine to make a crease in the cloth along one line, while the sewing machine is sewing it along another line, parallel to the creased line; whereby the operator at the same time, and by the same act, performs two operations, which formerly were done at different times, and by different acts, thus saving half the time of the operator, and also performing the operation with the accuracy of a machine and producing a very superior product.

The creasing mechanism consists of a notch and blade, combined with each other, kept separate by a spring, but capable of being brought together,
11 like the two blades of a shears, between which the cloth to be creased is passed along, step by step, while the two parts are brought together by a blow or pressure imparted to one of them, sufficient to force the cloth into the form of a crease. The proofs show that this is new, and is a tool or instrument, irrespective of how it may be operated—the only means before known for making a crease being a grooved board, into one of the grooves of which, the operator forced a portion of the cloth, laid upon it by a paper folder shoved along by hand, which felt its way into the concealed groove, and so made
12 a crease. Another hand tool, patented by Wheeler, is not a creaser. It pricks a series of holes in the cloth in a line, preparatory to folding the cloth by hand into a fold, whose situation the operator ascertains by observing the punctures in the cloth. Fuller did not arrange or patent this creasing mechanism as a hand tool; but the record shows that he might have done so, and have had a good patent for it, independent of its arrangement for, or com-

bination with a sewing machine. If he had, he could have held it as a hand tool for creasing; although it would have been comparatively an unimportant invention.

The construction and arrangement of this creasing mechanism, so as to combine it with a sewing machine is the valuable invention, which has entirely revolutionized the art, and introduced a new 13
branch of industry and a new manufacture into the market, viz., tucked cloth ready made, to be used for any of the purposes to which the species of ornamentation is applicable.

In making this construction and combination, two discordant instruments had to be reconciled. The movements of the reciprocating parts of a sewing machine are uniform and *positive;* that is, they are compelled to go a definite distance in both directions, or the machine must stop or break; while, on the contrary, the movements of the creasing machine are variable, and are controlled by the 13
thickness or quality of cloth to be creased. As a consequence, the two must be so combined as to reconcile the positive motion of one, with the variable motion of the other, and for that purpose the creasing mechanism must be peculiarly constructed.

And, inasmuch as the creasing machine must be able to make its crease at any distance from the line of stitching which may be required, the blade or point and notch must be adjustable in reference to the needle, without disturbing the connection between the moving part of the sewing machine and the blade or notch, which is to be actuated to produce the crease. It is also necessary that the creasing should be done only when the cloth is at rest, otherwise the creaser would hold the cloth fast when it is to be moved, which would break the machine. 14

These conditions are complied with, and the result is a co-operative combination of the creasing mechanism and a sewing machine, capable of producing the new and valuable result.

The Patent.

The specification very clearly describes all of these peculiarities. It begins by stating that "the nature "of my said invention consists in a *vibrating mark-* "*ing instrument, or instruments*, that move in uni- "son with the needle, so as to crease or mark the
16 "cloth at a given distance from the needle, and the "same *not pressing on the cloth*, except whilst the "needle is in the cloth, prevents such marking in- "strument obstructing the cloth in its movement "by the feed, and hence said mark can be made at "any distance from the sewing, and the cloth re- "main smooth."

The specification then describes different kinds of notch and point devices, capable of produc- ing a crease in the cloth and in detail- shows a good practical way of combining the creas- ing apparatus with the sewing machine, so as to permit the crease or creases to be made in either
17 side or both sides of the cloth at once, and at any distance or distances from the needle, or from each other; and then it points out that "it will be evi- "dent that the marking notch or point *i* or *k* or "both, might be placed directly on the arm *e*, "and provided with a suitable spring between the "bar and the point. The manner of attaching the "parts to the sewing machine must also be varied "as circumstances may require, for different char- "acters of sewing machines, or for different kinds "of work to be performed, and the vibrating mo "tion may be given to the markers by any other
18 "device beside the needle bar." It also points out the fact that this is the first *creasing apparatus* of any kind, all other devices acting "simply to *per-* "*forate* the goods, or form a mark at a given point "to which the goods had to be folded by hand; "whereas, my apparatus makes *a complete crease* "*in the cloth*, so that the parts of the cloth, *when* "*laid over each other, fold down at these creases*,

"without requiring creasing by hand as a separate "and pre-requisite condition."

Nothing can be clearer than the assertion of this specification, that the patentee is the first inventor of a creasing apparatus, whose peculiarity is the correspondence of the opposite parts, called a "notch" and a "point," for the purposes of creasing cloth by the act of bringing these two parts 19
forcibly together, with the cloth between them; and that he is the first inventor of so constructing a creasing apparatus that it may be combined with a sewing machine, so that both will simultaneously perform their functions in a better manner than if those functions were performed separately and consecutively.

The inventor, however, did not avail himself of all his rights by patenting both of these inventions; but limited himself to a claim of the most important one, namely; the construction and combination with the sewing machine. The claim is not very 20
skillfully drawn, but it is not ambiguous. Its formula is one often used in which the performance of the operation, by the means described, is made to stand for the "means" by which the operation is done; which is what is intended, and what alone is patentable. The words of the claim are: "Forming "one, two, or more creases in cloth *by means* of "*markers* on opposite sides of the cloth, one of "which is *connected with the bed of the ma-* "*chine, and the other operates simultaneously* "*with vibrations of the needle* in a sewing machine, "whereby," &c.

Stated in other terms, this is a claim for combin- 21
ing markers having the capacity to make a crease, with a sewing machine—one of the markers being attached to the bed of the machine, and the other to the needle-bar, or some other part moving coincidentally with the needle-bar—substantially in the manner and for the purpose described; and it is entirely unimportant whether the markers were old and well known, or were invented by the patentee.

If he conceived the idea of bringing together these two dissimilar instrumentalities into a co-operative combination, whereby a machine, capable of performing what has been before done by hand, was produced, and shewed how it could be practically done, he is entitled to a patent for that construction and combination; and the patent covers
22 not only the combination of the *particular sewing machine* and the *particular creasing device* which the patentee shows, but the combination of all sewing machines and all creasing devices, which co-operate in substantially the same way to produce the same compound result. The invention is not in either of the separate elements, but in the combination of those elements by the construction described.

The Issues.

23

The only questions therefore, that can arise, are:

1st.—Is Fuller the inventor of the new combination.

2d.—Do the defendants use that combination.

Novelty.

1st.—The Court decides that Fuller is the first inventor, and that his patent is valid. His Honor
24 thus states it: "ALL THAT HE INVENTED WAS THE "APPLICATION OF THE NOTCH AND BLADE, THE "SPRINGS AND THE VARIOUS OTHER PARTS OF THE "MECHANISM TO THE SEWING MACHINE."

That is *all* that it is necessary to show in order to sustain the patent; although there is no proof in the case to support the

suggestion of His Honor that Fuller "did not invent the notch and blade," if by that is meant that he did not invent such a notch and blade in combination *for the purpose of creasing cloth*, as he shows: if it is meant that in the abstract, "notch" and "blade" were old, and that they stand in the same category with "springs" which "also were old," then there is no objection to the 25
statement.

No witness has sworn that any notch and blade were ever combined to crease cloth, or that any of the metal working machines referred to, for cutting or bending metal, were suitable for this purpose, although it is doubtless true that all "dies and counter-dies" used for striking up metals or other ductile materials, are, in some sense, analagous to the "notch and blade" of this creasing machine; but they are not the same thing, nor would their existence prevent a good patent for a creasing device founded upon the idea that 26
cloth can be creased by suitable tools: none of the old things would do it.

The invention is claimed to be anticipated by various metal bending, grooving, perforating, and die-sinking devices which are not described, located, nor illustrated by any models or drawings; by the use of a paper folder shown on drawing p, 104, and a somewhat similar thing apparently on which Chapin says he saw cambric creased, where and when is not apparent. p. 69, Q. 16.

The patent of C. D. Wheeler, February 14, 1860, is also urged as anticipating Fuller; an examination of the specification discloses the fact that it is 27
simply a hand device, and does not make, nor was it intended to make a crease.

The evidence on the point is clear.

Daniel Barnum testifies that it was not intended to, nor did it crease.

George L. Chapin, an expert for the appellees, testifies, p. 82, and X-Q. 127 to 133, that it has no mechanical connection with the sewing machine,

nor relations with the needle; that it is not automatic; that he never saw it used for tuck creasing, except when he experimented, and that the language of the specification does not indicate whether Wheeler contemplated making a crease or not. At page 90, Q. 215, when asked whether a tucker device made according to the Wheeler specification
28 and model, would make a crease or line equivalent to a crease, he replied that the marks might be made near enough for that purpose, but the process would be slow.

N. H. Sherburne, after endorsing Chapin, testifies that the upper and lower parts of Wheeler could be substituted for similar parts in Yentzer's device, and after making the substitution proceeds to put a slot in the upper part, then to make a thin spring of it, and then to elevate it. It was not thought necessary to find out from him how he would avoid the feed and attach it to the machine, (p. 95)..

29 There was some effort to attack its utility.

Chapin, p. 68, q. 4, swears that *a model* constructed as No. 4 (Fuller's model) now is, would not be of any practical use for marking cloth.

On cross-examination, p. 78, X-Q. 87, he shows the state in which "model No. 4 now is."

Sherburne also testifies, p. 107, fol. 390, that should complainant's device be made in all its parts, as shown in the *model*, it would be impracticable and inoperative, for reasons there stated.

As he endorses Chapin, p. 93, Q. 1, he is probably correct.

30 Daniel Barnum testifies, p. 26, Q. 4, that Fuller's device made in accordance with the *specification* would be practically operative.

It is suggested that the specification, and not the model in a dilapidated condition, should be the guide in the construction of the invention.

The patent, p. 6, fol., 56, provides for the permanent attachment of the marker to the plate.

INFRINGEMENT.

The invention of Fuller has three purposes, viz.: to make tucks, plaits, and marked lines requiring changes in the mechanism for each. (Barnum, p. 27, fol. 212.) In using it for tucking, the pencil, spring finger *O*, and swinging guide *p*, are dispensed with.

As described its mechanical parts are: 1, the bar *g*; 2, the arm h, carrying a notch; 3, a plate supporting a point; and 4, the arm *e* attached to the needle arm. 31

These mechanical parts are all found in the appellee's devices, Ex. 3 Z, p. 18, performing the same functions.

Instead of being separately attached to the machine, as in the Fuller invention they are all connected together and require but one fastening.

The bar *g* serves a double purpose, being secured to the back of the plate and acting as a smoother, but carries the arm *h* at, the extremity of which is placed the marker, precisely as in Fuller's. 32

The arm *e* is found fastened to the back of the plate and is struck and carried down by the needle arm instead of being placed on it.

The plate carrying the under marker is identical with that of Fuller's.

Chapin, p. 74 X-Q. 33, enumerates the essential elements of Fuller's invention as follows:

"A. The spring arms carrying the notches or blades, the bar to which they are attached, the slotted bed-plate supporting the notches or points, and the horizontal bar attached to the needle arm for operating the spring arms." 33

He says substantially the same thing at p. 60–61, fol. 276, adding that one marker might be used instead of two.

At page 81, after considerable fencing, he gives what he considers are the essential elements of the appellee's creaser, Ex. 2 X. as follows, (X-Q. 116.)

"Bed-plate, spring-arm, spring-bar, two part blade," (spring notch,) "and point.

At p. 83, Q. 137 *a*, he testifies that Exhibit 18 is identical with Exhibit 2 X.

It is thus apparent upon the testimony of the appellees, that the Fuller invention and the Yentzer Exhibits 2 X. and 18 have identically the same mechanical parts.

34 An alternative device is described in the specification of Fuller which reduces the mechanical parts. It is thus stated: "It will be evident that marking notch or point *i* or *k* or both might be placed directly on the arm *e* and provided with a suitable spring between the bar and point." See p. 6. fol. 62.

This feature is fully explained in the testimony of Barnum in his answers to Q. 6 to 12, pp. 27, 28 and 29, and is illustrated by Exhibit B, in which the forms of the parts described are followed closely, and in Exhibit C, a creaser placed on the market by Fuller in 1860.

35 The mechanical parts in this alternative device are, first, a bar or arm *a*, carrying a notch or point, to be operated by the needle arm, and a bed plate, provided with a point or notch, supported upon the bed plate of the sewing machine.

Barnum, p. 29, Q. 13.

The description of this device is full and clear enough to enable an ordinary mechanic to make it.

Barnum, p. 28, Q. 10.

The witness, Chapin, was ignorant of this feature of the specification until his attention was specially called to it. See p. 74, and Q. 36 to 39. He then
36 undertook to say the description called for invention by a mechanic to make the change or "*entire new construction*," and on being pressed refused to swear whether it would or not.

Page 74 and 75, X-Q. 40 to 51.

His subsequent answers to X-Q. 56 to 61 in attempting to state the difficulties in making the change described, show an amount of ignorance remarkable even among experts.

If further instances were wanted, his statements that the Fuller model 4 is adjusted for tucking, p. 79, X-Q. 93, when it is adjusted for plaiting; that the curved guide *p* is intended to keep the cloth smooth, p. 79, X-Q. 95, when it is described as a guide for a plait; that the end of the bed plate or curved spring plate are guages, p. 79, X-Q. 98, 99, when they perform no such office, and 37
that an ordinary sewing machine gauge could not be used with the Fuller device, because the bed plate would be in the way, p. 80, X-Q. 109, 110, when the specification states that in tucking the plate is to be placed in front of the needle, would supply them.

Chapin, on his direct examination, compares the Fuller invention not only with the Yentzer Exhibits, but also with tuck creasers made by Fuller and his licensees under his patent, the Wheeler & Wilson S. M. Co., Wilcox & Gibbs S. M. Co., the Singer Mfg. Co., the Grover and Baker S. M. Co., and finds
that all of the latter are essentially different from 38
the former, but on cross-examination finds in all the essential mechanical parts of the Fuller invention, to wit, an arm carrying a marker vibrating in unison with the needle, and a bed-plate provided with a marker supported by the bed-plate of the sewing machine. (pp. 81, 82, X-Q. 120 to 127.)

An effort was made to establish the point that Yentzer Exhibit 3 Z did not crease, but perforated the cloth, and all the witnesses for the appellees so testified on their direct. Chapin however concedes practically that there is no substantial difference in principle between the Fuller invention and Ex-
hibit 3 Z, (p. 81, X-Q. 117, 118, 119,) a conclusion 39
to which he may have been assisted by the fact that the appellees had abandoned the conical point and slot for the spring notch and blade, as shown in Exhibits 2 X and 18.

See Smith, p. 57, fol. 260.

It has been fairly proved by the testimony of the appellees that the Yentzer tuck creasers embody, part by part every essential mechanical part of the Fuller invention used in tucking, and that every part in both perform identical functions.

It is insisted that under any construction which may be placed on the first claim of Fuller, the devices of the appellees infringe it.

40

The essential elements of the Fuller invention are:

1. An upper marker connected with some moving part of the machine, and operating and vibrating in unison with the needle; and,

2. An under marker supported by the bed-plate of the machine, and co-operating with the upper one.

These elements are found in the defendant's combinations.

41

Error.

The Court erred in its construction of this patent.

The Court, after holding that "all that he (Fuller) invented was the application of the notch and blade, the spring and *the various other parts of the mechanism* to the sewing machine," says that "all that he can claim, and, I think, all that his "patent properly construed, can be considered to "cover, *is the particular device* which he adapted "in its application to the bed-plate of the sewing "machine and to the needle bar."

42

If, as is believed, the Court intended to hold that the inventor should be confined to his specific mechanism in form, shape and substance, it is insisted that the Court erred.

This invention was a pioneer, a new departure in the art of sewing by machinery; was exceedingly useful and very valuable, and was fairly entitled to a liberal construction.

Pioneer inventions are generally crude, and once made, improvements are rapidly suggested, but in this case every mechanical part of Fuller's invention as applied to tucking is found in the tuck creaser of to-day, the only great advance made being the assembling of the parts, to make the device a unit in adjustment and attachment. 43

The inventor describes various mechanical devices for operating these markers and states "the manner of attaching the parts to the sewing machine must also be varied as circumstances may require, for different characters of sewing machines, or for different kinds of work to be performed, and the vibrating motion may be given to the markers by any other device beside the needle bar. 44

Nowhere in his specification does he claim any particular mechanism for operating the markers, nor does he attach any importance to it.

His invention consisted simply in the use of markers applied to the sewing machine, and so operated as to engage with the cloth between them at certain points in the mechanical operations of the needle and feed, so as to avoid interfering with either.

He shows an operating mechanism arranged for the Wheeler & Wilson machine, which would require modification and changes to adapt it to any other. 45

His invention was then complete and mere changes in the operating mechanism could not affect it, and although the mechanism he pointed out, has since been universally used, however much it may be to his credit, it ought not and cannot limit his claims.

The Court erred in holding that the appellees did not infringe.

Upon a construction limiting the claim to *substantially* the precise form and parts of the operating mechanism the appellees were clearly covered by it.

46

As before stated the only parts employed by Fuller for tucking were; 1, an arm or bar supporting a spring arm at right angles to it carrying a marker; 2, a bed-plate resting on the bed-plate of the machine, supporting a marker; 3, an arm or bar operated by the needle arm, striking and forcing down the spring arm bearing the upper marker.

A mere inspection of the appellees exhibits 2 X and 18, shows the existence of each and every of these parts.

47 An alternative mechanism described employs only; 1, an arm or bar carrying a marker operated by the needle arm; 2, a bed-plate resting on the bed-plate of the machine supporting an under marker.

An inspection of appellee's exhibit 3 Z, shows quite as clearly these elements.

Unless the Court held that the mere form of attachment was essential, a view the inventor expressly disclaims, the appellees devices are identical in form, as well as mechanical functions.

48

The Court gives us no explanation of the difference between the invention patented and the defendent's combination, so that it is impossible to point out the special error committed. It is, however, very easy to show the entire similarity of the two things, whether they be compared on the theory that the invention is a combination of a creasing

mechanism, with a sewing machine, or on the theory that the detached parts of each must be compared with the detached parts of the other in order to find identity.

EDWARD N. DICKERSON.

E. B. BARNUM,

Counsel for appellants.

Supreme 34.51.52.53.54.55

IN THE

SUPREME COURT

OF THE UNITED STATES,

OCTOBER TERM, A. D. 1876.

NORTHERN DISTRICT OF ILLINOIS.

HENRY W. FULLER, *vs.* ENOCH S. YENTZER, and WALTER SCATES, *Appellees.*	*Fuller & Goodell Pat.*
SAME VS. SAME.	*Same on Rose Patent.*
SAME *vs.* HERMANN B. GOODRICH, *Appellee.*	SAME ON PATENT *to Fuller, Assignee of* J. M. ROSE.

BRIEF AND ARGUMENT

—BY—

WALTER B. SCATES,

COUNSEL FOR APPELLEES.

:o:

BOOK-WAR. BARRY PRINTERS CHICAGO

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BRIEF AND ARGUMENT BY WALTER B. SCATES,

COUNSELLOR FOR APPELLEES.

MAY IT PLEASE THE COURT:

In the discussion of the questions of law—and of fact, that may arise and be presented in these three cases—I shall group them together, because the Bills are predicated of an alleged invention by Fuller himself in one —and one by Israel M. Rose, for which a patent issued to James wilcox, Sept. 22, 1863—and which being sur-

rendered—was re-issued to complainant Dec. 1, 1868, upon amended specifications and claims;—and they alledge infringements, by the respective appellees, by the manufacture and sale of Tuckers for Sewing Machines, substantially similar to, and embodying the invention and improvement described and specified in appellant's own Patent, and Rose's re-issued Patents. These allegations are denied, involving the question of substantial similarity in chief—though other questions of law, and of fact, are essential to its elucidation and solution.

And amongst others—it is of primary importance—first, to ascertain and settle by construction of appellant's Patents, what is the nature, extent and character of the invention, or improvement or device covered, secured and protected. And as to these, the counsel may differ, and the court must settle the difference. As germain to this inquiry—I deem it of importance to refer to settled principles of law as to what is not patentable—and some other distinctions.

First. Then a *Principle* is not patentable, 14 How. R. 156, 174; 22 How R. 132; 15 How R 62; 1 Wall. R. 320; 20 How R. 378; and others referred to in Bright Fed. Dig. 609, sec. 15.

Second. A *new power* is not patentable—See same cases above.

Third. An *end* or *result* is not patentable—but only the means of obtaining it.

4 Bl. C. C. R.; Burr vs. Cowperthwaite; Sickley

vs. Falls Co., 2 Fisher R. 202; Case vs. Brown, 2 Fisher R. 268; Sangster vs. Miller, 2 Fisher R. 563.

Fourth. Where a person has discovered a *result*, as well as the *machinery* which produces it—he may invoke the doctrine of *equivalents*: but if he be only the inventor of a *device*, he *cannot invoke* the doctrine of *equivalents* in reference to infringers.

Singer vs. Walmsley, 1 Fish R. 558; Goodyear vs. Central Railroad, 2 Fish R. 626.

Fifth. A discovery of *an effect* is not patentable.

Morton vs. N. Y. Eye Infirmary, 2 Fish R. 320.

Sixth. A *process* is patentable, and may cover the discovery of a *result*, or *effect* by chemical action by the operation or application of some element or power of nature, or of one substance to another.

Cowing vs. Burden, 15 How R. 252; Howe vs. Abbott, 2 Story R. 190.

Seventh. So a *mode* of manufacturing and putting up caustic soda—is patentable, on the same reason as a *process*.

Penn. Salt Manuf'g Co., vs. Guggenheim Cir. Ct. Plea, 30 May, 1868, per Gier, Justice. Brightly Fed. Dig. p. 609 sect. 25.

But a *mode* in *labor* or *mechanics* is not patentable.

Exparte Kemper Cranch Pat. Decis 89.

Eighth. A *method* or mode is not patentable.

Wysth vs. Stone, Story R. 274; Root vs. Ball, 4 McLean R. 177; Exparte Kemper, Cranch Patent Decis 89.

Ninth. A patent for a *combination*, cannot be supported by evidence of novelty of *one* of its *parts*.

Batten vs. Clayton, 2 Whart Dig. 408.
Bright Fed. Dig. p. 611, Sect. 65.

Tenth. A *combination* to be patentable, must *effect* a *new result*, or an *old result* by a *new mode* of *action*: there must be *novelty* either of *product* or *process*—Ibidem last above.

Eleventh. A *combination* is an *entirety;* if *one* of the elements claimed, be *given up*, the patentee has no valid *claim* to the *residue*.

Vance vs. Campbell, 1 Bl. R. 427.

A. If a patentee *claim* for *one improvement* to produce a particular *result*, as the object of his invention, by *means* that he sets forth, his patent *only* protects the *combination* of the *whole*, as one invention; not each *particular*, distributively considered.

Higgins vs. Hubby, 3 West Law Monthly, 347.

B. *One* part of an invention, not being *original*, no action lies by the patentee, for *using it* in *combination* with other inventions, not presented by him.

Janes vs. Moorehead, 1 Wall R. 155.
Watson vs. Cunningham, 4 Fish R. 628.

C. A patent for a *combination* of *three* or more distinct things, is not infringed by *combining two* of them with a *third*, which is substantially different from the other elements described in the specifications.

Prouty vs. Ruggles, 16 Pet. R. 336—and many others referred to in Bright Dig. p. 612, sec. 83.

D. To constitute an infringement of a patent for a *combination*, the defendant must have used the *same combination*, constructed and operated *substantially* in the same way.

Graham vs. Mixler, 1 Am. Law J. 539.

E. Where a patent is granted for a *combination* of mechanical devices, none of which are an *original* invention—the use of a *part only* of the *combination* is no infringement.

McCormick vs. Talcott, 20 How. R. 402
S. C. 6 McLean, R. 539; Barrett vs Hall, 1 Ma. R. 447; Pitt vs. Wemple, 6 McLean R. 558, 612, 621. Same parties, 2 Fish R. 10, 615, 618, 619, 621; Evans vs. Eaton Pet. C. C. R. 323: Lee vs. Blandy, 2 Fish R. 89.

F Same of a *Process*—Howe vs. Abbott, 2 Story R. 190

Twelfth. If a patent be taken for *several improvements* in a machine—and each of them be *summed up* in the patent, as the invention of the patentee, he is bound by his *Summary*, and if any *one* of the *improvements* be found not to be *new*, the patent is void.

Moody vs. Fisk, 2 Mas. R. 112.

A. If a *particular* improvement, claimed as *new*, be not distinguished from the *rest* of the machinery, the *only* mode of obviating the difficulty is, by an *amended*

specification or a *new* patent. A party cannot entitle himself to a patent for *more* than his *own* invention.

Horvey vs. Stevens, 3 Woodb & Min. of R, 17, 18; Woodcock vs. Parker, 1 Gall, R. 438; Whittemore vs. Cutter, 1 Gall R. 478; Odiorne vs. Winkley, 2 Gall R. 51; Barrett vs. Hall, 1 Mas R. 447; Evans vs. Eaton, 3 Wheat R. 454.

B. If a patentee knowingly claim *more* than his *own* invention—his patent is void.

Singer vs. Walmsley, 1 Fish 558

C. Where a patentee *claims three* distinct improvements, he must show himself entitled to *each*, to sustain an action for infringement. If the patent be for an *improvement*, it must be substantially *new*, and one capable of application by the means pointed out by the patent, specification, drawing, model, and the old machine.

Heinrich vs. Luther, 6 McLean R. 345.
Whitney vs. Emmett, Bald R. 303.

Thirteenth. A patent does not *protect* a *claim* not embraced in the *specification*—nor can the patentee claim that his invention is *different* or *more enlarged* than is set forth in his specification.

Booth vs. Gavelly, 1 Bl. C- C. R. 247.
Rich vs. Lippincott, 2 Fish R. 1.

A. If a patentee *omit* to *claim* a *part* of his invention and it pass into *public use*,—he *cannot re-assert* his right to it by a *surrender* and *re-issue* of his patent. Nor can

it be re-issued for an invention *different* from that originally patented.

Battin vs. Taggert, 2 Wall jr. C. C. R. 101. sec. 8, Leg. Int. 126,

B. And if *broader* than the *original* invention it is void.

Carhart vs. Austin, 2 Fish R. 543

FULLER AND GOODELL PATENT.

First. What I inquire is covered by this patent, as a device for a Tucker for a Sewing Machine? I may answer negatively, under settled principles of adjudication: that neither a *principle*, a *new power*, an *end* or *result*—an *effect*—a *process*—a *mode*—a *method*—nor any part, nor the whole of any mechanical device known to the art—or in common use prior—nor any device *previously* patented by another or *previously* described in a publication or print.

With these premises—I take up this patent for examination and construction. I find the alledged invention is described on the face of the letters patent "a new and useful improvement for marking cloth in Sewing Machines," and in the specifications "new and useful improvements in mechanism, means for marking cloth in Sewing Machines"—which is denominated the universal marker for plaiting and tucking. Under this specious christening—the inventor proceeds—without a word as to existing mechanisms for like purposes—what they accomplish and how they did it—that his "new and useful

means for marking"—may appear as he goes on—to describe the parts—the combination and construction of them, and the mode in which they operate—and the result to be attained thereby.

The first part consists of vibrating marking instruments. These are found in Wheeler's patent.

SECOND. A point vibrating in unison with the needle on the upper surface of the cloth—in connection with a notch, or an elastic surface or pad, below the cloth, or *vice versa*. These—excepting that Wheeler's does not vibrate with the needle are found in Wheeler's device—nor could Wheeler have given a truer or better description of these parts of his own mechanism. The next simply substitutes a pigment—for, or in place of the metalic point—and multiplies the number that may be used together, at the same time. After describing parts of a Sewing Machine, he proceeds to illustrate the parts of his improved mechanism by reference to his drawings, showing how they are to be put together, adjusted, and attached to the sewing machine; *g* is a bar and may be attached to the presser foot, or in any other convinient manner, and upon this bar are fastened and adjustable the the spring or vibrating arms that hold the upper markers and pigments, over which springs, another bar *e* is fastened to the needle arm, and so as to work these spring-arms holding the upper marker.

Now for the under-markers, a bed-plate is attached to the bed-plate of the Sewing Machine, by screws, and the under-markers are placed in the bed-plate so attached.

These points are described as being "thin, rounded and blunt chisel forms, so as not to injure or catch in the cloth." These under-markers are fitted to be adjustable by sliding in a groove in the attached bed-plate, and the upper ones are in like manner adjustable upon the supporting arm *e*. There is a guide-plate *l*—so has Wheeler's. There is an adjustable spring finger *o*—on the same arm *e* with the upper markers—for keeping the surface of the cloth smooth. All Sewing Machines had always used cloth guides and smoothing strips.

Various modifications of these arrangements are suggested—and amongst others—that vibrating motion may be given to the markers by any other device beside the needle bar. This last if sustained without pointing out any mode of doing so, would cover any and all inventions of others, by which some other motive power could be applied.

The inventor disclaims a guage, and he says that all previous devices known to him acted by simply perforating the goods, or forming a mark at a given point, and had to be folded at it by hand. He then claims:

1. Forming 1, 2 or more creases in cloth, by means of markers on opposite sides of the cloth; one connected with the bed-plate of the machine, and the other operates simultaneously with vibration of the needle in a Sewing Machine, forming the creases parallel to the line of sewing.

2. "Marking a line on the surface of cloth or other materials, by means of a pencil or similar article."

I have been thus full in the material parts of the description, that I may, if possible, comprehend and understand the language of their claims. The captions are predicated of "new and useful improvements in *mechanism*" and "new and useful improvements in *means*"—for marking cloth. But the claims are for "forming one, two or more creases by means of markers on opposite sides of the cloth, as set forth" and "marking a line on the surface of cloth or other material" "by means of a pencil or similar article, that is pressed upon the surface" "as set forth" This phraeology is ambiguous, confused, uncertain and doubtful, and seems to have been so framed for a purpose. A claim for "forming" of "creases by means of markers" and "marking a line on the surface" "by means of a pencil or similar article that is pressed upon the surface of said cloth" is simply a claim for a *mode*—a *method*— an *effect*, a *result* or a *principle*: and not for the mechanism, or device itself as the means of doing it:—and I have reason to believe that the complainant, without openly and avowedly claiming it, is nevertheless, seeking, by an injunction in these cases, to attain and accomplish these *results*, and will, if successful. This would stop, or put under, a sort of *bucksheesh—royalty*, all *processes* that have been used by manual manipulations, and an almost endless variety of mechanical devices for probably more than five thousand years past; beginning with Mrs. Adam—or mother Eve—the first historical milliner; and reaching down to Mr. Fuller's Patent in 1860; and in like manner, lay under contribution or stop your printing presses, and lastly, though not to say least,

your calico and other cloth-printing; all of whom are "marking lines on the surface by means of a pencil or similar articles pressed upon the surface" of cloths, parchments, paper and their equivalents; nor could your honor write your decisions in these cases without a license from Mr. Fuller. If this be the meaning and extent of these claims, sought to be covered by this patent—it is simply void—they are not patentable.

Again: if Mr. Fuller, in these specifications and claims, intended to claim to be the inventor of all the different parts of this complex piece of mechanism, his patent is void, for the reasons, that all the material and essential principles and elements embodied in his mechanical device—have—long prior to his patent—been substantially embodied in various mechanical devices and contrivances—and in public use—I may say—for centuries: and his device is a substantial and simple pirating, in its chief, essential and most vital parts—of the patent of C. D. Wheeler—and of its markers, springs, plates and arms—and also in his mode of attaching it to a sewing machine.

Again, it is void for ambiguity, and uncertainty as to which is *new* in his device,—and as to what *part* he invented as an *improvement* of existing devices: he disclaims a guide only—and describes and claims all the other parts, and whole—not distinguishing his invention, or *new* improvements, from existing devices—excepting alone, that all devices known to him, had sharp points—as one marker which penetrates the material.

Whereas his points were described as "thin, rounded and blunt chisel forms." And this form of a point for creasing cloth is substantially the same as that used long before by ladies—by laying cloth over a notch or groove in a board or table, and creasing it with a "thin, rounded, blunt, chisel-formed" stick or piece of wood. (See 1 Fisher R. 213; 11 Wall. R. 541-542.

He has simply formed a *combination* of his own, of devices old, and long known and used—and not patentable. Had he been content to have described the several devices, or his change in their forms—as entering into and forming parts of his *combination* and its application, and have contented himself by a claim only for this *combination*—his patent and claim might be sustained.

On the contrary—he has omitted to claim his mechanical device as a *combination*—or in *combination*—with one exception—and that is that one of his markers "is connected with the bed-plate of the machine, and the other operates simultaneously with vibrations of the needle in a sewing machine":—and this language is more descriptive of his mechanism, than appropriate as a claim of a *combination*.

2 Blatch R. 240; 16 How. R. 480; 14 How, R. 226; 1 Fish R. 589; 11 Wend R. 541-542; 3 Fish R. 640; Curtis on Patents, Sec. 269.

I have thus scanned the specifications and claims—I have also examined the drawings and model—and I find in none of them anything patentable but his peculiar mechanicam—arrangements and adjustibility of parts—

and his mechanism as a whole. The device is intricate—complicated, and *worthless as a Tuck-Marker*—and I have made inquiries, and have been unable to learn that any Tuckers like it have ever been manufactured or put upon the market, or sold.

I have examined all the Tuckers manufactured by complainant and his licenses—under his patent—and they are now before the court—as exhibits—which I have been able to procure from complainants or others—and neither of them—has any resemblance, mechanically or otherwise—to the real patented or patentable features of his device.

Among these exhibits are Tuckers manufactured by Grover & Baker, Wheeler & Wilson, Wilcox & Gibbs, Singer Company, and H. C. Goodrich—claimed by complainant to be licenses under his patent, and such as were manufactured by himself. I submit to your honor that there is not a single patentable feature or principle of complainants device, covered by his patent—to be found in these respective manufactures—unless, indeed, he can cover and include—as I before remarked—I had reason to believe he intended— the principles embodied in devices known and in common use. The form of markers in the Grover & Baker and H. C. Goodrich Tuckers is a notch and blade—and in the Wheeler & Wilson a slot and blade—all use springs for communicating motion from the sewing machine—and for lifting the upper marker from the cloth. But in form of construction, mode of operation, adjustibility and attach-

ment—they are essentially different and unlike. They each and all are simple—and possess practical utility—while the complainant's possess neither.

This proceeding is instituted to suppress an alleged infringement of complainants Patent: and one of the points of inquiry may be the validity of the Patent whose infringement is claimed.

I shall, as a preliminary inquiry, endeavor to ascertain what the complainant's invention is, viewed from his own stand point: and also what it is, according to the official *claim* as filed with the specification.

His claim must be in accordance with, and especially must not be broader than his invention: and if it be thus palpably broader than the invention, the patent is, according to the fundamental principles governing this subject, absolutely void.

Their chief expert witness states it to be (Ans. to 6th Int. p. 27) * * "the *idea*" * * "of forming a "crease in cloth for marking tucks * * * by means of "markers placed on opposite sides of the cloth, one of "which has a notch and the other a point fitting into it, "the under one being connected with the bed-plate of "the machine and the other operated by the needle arm" * * "and so arranged in its connections as to vibrate in "unison" * * * "with the needle and to press the "cloth into the notch" &c. Or, (Ans. to 15th Int. p. 29) "Any device which has a point or blade attached to the "bed-plate of the machine * * "and a notch operated

"by a moving part of the machine which vibrates in "unison with the needle."

Or, (Ans. to Cross Int. 20. p. 38.) "Fuller's patent "includes and covers a notch and blade irrespective of "form when either a notch and blade is connected with "the plate of a sewing machine and the other connected "with a needle arm" * * "and arranged so as to vi- "brate simultaneously with the vibrations of a sewing "machine needle for creasing cloth for tucks."

Or, (Ans. to Cross Int. 39 p. 41)

* * "You may remove all the mechanical parts de- "scribed by him (Fuller) for operating it between the "notch and point, and the place where the vibrating "motion is obtained and substitute therefor *entirely different mechanical parts* for producing the vibrations simultaneously with the needle; and you would still retain the invention, provided the under marker was attached so as to be supported by the bed-plate of a sewing machine, and the upper marker was operated by, and made to vibrate simultaneously with the needle, and thus to form a crease parallel to the line of seam while being sewed by a sewing macine for a preceding tuck,"

His official "*Claim*" is, the "forming one, two or more creases in cloth by means of markers on opposite sides of the cloth, one of which is connected with the bed of the machine, and the other operates simultaneously with vibrations of the needle in a sewing machine, whereby the crease or creases are formed in the cloth itself" &c.

Therefore, it is manifest that complainants claim that the creasing of cloth by means of upper and lower markers on opposite sides of the cloth which is done on a sewing machine by the vibrations of the needle-arm *in any mode, manner or shape in which this may be accomplished* is their invention and within the scope of their patent as they claim it.

In the leading case of "Nielson vs. Harford (Webs. Pat. Rep. p. 355) the court says:

"If you claim every shape, you claim a principle: "there is no difference between a principle to be carried "into effect in any way you will, and claiming the prin- "ciple itself."

Again in "Walton vs. Potter" ib. p. 590.

"There may be many different modes of obtaining "the same object: and, consequently, if, after a patent "has been obtained for a particular thing, another party "without borrowing from that patent has invented a new "mode of accomplishing the same object he will be entitled to a Patent for his discovery."

The same doctrine is thus defined:

"The Patent must be for a thing—not for an idea merely." "A Principle in the abstract is a fundamental truth—an "original cause a motive: these cannot be pat- "ented, as no one can claim in either of them an exclu- "sive right"

Abbotts U. S Pract. p. 501.

Can there be any doubt in this case, that Complain-

ants claim the *Principle* of tuck-creasing by upper and under markers on opposite sides of the cloth when done on, and by the power of, a sewing machine?

A Claim almost precisely parallel to the claim made here was made by Morse, and overthrown by this Court in the celebrated case of "O'Reilley vs. Morse." 14 How. 62.

The court there said:

"It is impossible to misunderstand the nature of this "claim: He claims an exclusive right to every improve- "ment where the entire power is the Electric or Galvanic "current, and the result is the making or printing intel- "ligible characters" * * * "at a distance. If this "claim can be maintained, it matters not by what process "or machinery the result is accomplished."

By reference to the *claim* of the patentee, it will be plainly seen that he claims for the *process* of "forming" creases by means, not of any defined mechanism, but *in any mode* whereby the result is secured by markers on opposite sides of the cloth in connection with a sewing machine.

This can be no other process than that which represents the office or *function* of his mechanism: and, as I think, is manifestly not patentable.

In Abbott's U. S. Practice p. 503 it will be found that "process" * * "when used to represent the func- "tion of a machine or the effect produced by it, or the "material subjected to its action" * * * "cannot be "the subject of a Patent."

By reference to the language of the *claim*, and to the definition of the Patent by the witnesses, the conclusion is inevitable that complainants claim a right to the *institution*—so to speak—of tuck marking by means of markers on opposite sides of the cloth when done upon and by the power of the sewing machine, however the same may be accomplished.

That this claim is not tenable may be seen from hhe following, viz: * * * "it would. be absurd to say "that the granting of a Patent covers all possible ways "of producing the same result: such is not the intention "or spirit of the Patent law."

Lee vs. Blandy 2d Fish. 93.

"Thus also, "A Patent is not good for an effect or "the result of a certan process as that would prohibit "all other persons from using the same thing by any "means whatever."

Singer vs. Walmsley 1 Fish. 566.

Again, "Where two machines produce the same "result but the means used by each to effect or produce "such result are different, the two machines are not alike "in principle, and the one is not an infringement of the "other." Burr vs. Cowperthwaite 4 Blatch. 172.

Or, "If they are substantially different combinations "of mechanism to *effect* the same purpose by means "which are really not the same in substance, then the "one will not be an infringement of the other."

Lowell vs. Lewis 1 Mass. 182.

And an inventor, * * "cannot suppress subse-"quent improvements which are substantially different "&c."

Seymore vs. Osborne 11 Wall 556.

Referring to the last three cases, it will be obvious that the Law contemplates as within the proper scope of a Patent, the invention of Mechanism to produce results: and not (as complainants seem to claim) the invention of results produced by *any mechanism whatever*: likewise that when a proper patent for mechanism is established, that it does not bar others from also patenting mechanism for producing the same results, provided, of course, that it be not the same mechanism or that which is substantially the same.

And I may add, that the fundamental error of complainants seems to be:

FIRST: That their *claim* does not embrace a claim for mechanism at all: but for a principle or result.

SECOND: That in defending their claim, they are compelled to try to estop all persons from infringing upon that principle or result.

"The patent must be for the *material* means of pro-"ducing the effect for the machine or process by which "the form or principle of nature is enabled to produce "the desirable effect or result.'

And, "A Patent cannot be sustained for an effect "produced distinct from the process or machinery neces-"sary to produce it." Abbotts U. S. Pract, 502.

Need I say, that in view of this statement of the law that the inventors *claim* in the "Fuller" Patent should have been revised? Much stress is laid upon the assumption that Fuller was the first Inventor of automatic Tuck creasing: I say that, even if this be so, it is not a circumstance which the law considers at all: thus Mr. Justice Clifford says, "the patentee cannot treat another as "an infringer who has also improved the original ma-"chine by the use of a substantially different combina-"tion, although the machine may produce the same re-"sults: *These inventions are just as meritorious as those "of any other class.*" Abbotts U. S. Pract. 505

The law is also thus stated. "The inventor of a "first improvement cannot invoke the doctrine of me-"chanical equivalents to suppress all other improvements "which are not mere colorable invasions of the first."

Also, "The inventor cannot treat another as an in-"fringer who has improved the original machine by using "a different form or combination performing the same "function." McCormick vs. Talcott, 20 How. 405.

Now, the various steps in Tuck creasing were as follows, viz:

1st. The almost entirely primitive mode of the needle in one hand and a measuring card in the other

2nd. The upper and lower markers on opposite sides of the cloth: the proposed tuck measured by a gauge, the whole attached to the lower side of the sewing machine, (or any table) and operated by hand.

This was Wheeler's device.

3rd. The same device attached to and operated by the power of the sewing machine. This was Fuller's invention.

4th. The various other inventions which have succeeded the crude inventions of Wheeler and Fuller.

II.

This leads us naturally to consider the question, what Fuller might have rightfully patented: and also what he could not rightfully patent. And, first: He could not patent the upper and lower markers; as they were, admitedly, old and familiar devices.

2d. He could not patent the tucking of cloth by means of such markers *per se*, as in that he was anticipated by Wheeler, if, in fact, he was not likewise anticipated by the similar art of creasing tin and other subsances which had been in vogue for many years.

3d. He could not patent (as complainants evidently think he could) the power of the sewing machine to impel these markers upon each other; for it was in common use as a power under divers patents long before Fuller was known as an inventor.

In Smith vs. Ely 5th McLean 79, the court says: "The motive power of the galvanic current, however de-"veloped to produce a given result, can be no more pat-"ented than the motive power of steam to propel boats, "however applied."

4th. He could not patent (as he evidently designed to do) the *institution* or process of tuck creasing by means of markers on opposite sides of the cloth impelled by the sewing machine.

If my view be correct of what he might *not* rightfully patent, it clearly follows that all which is embraced within his device which he might have patented, is his mechanism attaching the apparatus for creasing to the sewing machine.

Whether this be embraced within his *claim* or not: in other words, whether he has *claimed* what he might have claimed under his invention is a proper question for the court under this proceeding. I think he has not.

And in like manner, it is, I think, a proper question for the court, whether his *claim* is not broader than his invention. If it be so, it would, in a proper proceeding, have to be adjudged void.

III.

Incidently, in passing, I might make a cursory inquiry whether Fuller has not, according to his claim, infringed Wheeler's patent?

An essential part of Wheeler's claim is the placing of upper and lower marker in juxtaposition so as to crease cloth.

Now, Fuller seeks to escape the dilemma of infringing, by urging that his (Fullers) upper and lower mark-

ers are so arranged as to be impelled by the power of the needle arm. As a sufficient reply to this, I find it stated in Laws Dig. p. 363. See. 29, that "the substitu-"tion and use of one power as electricity in the place of "another as hand power does not make the machine dif-"ferent or prevent its being an infringement."

I do not wish to be understood as alleging that Fuller infringed Wheeler, but it is because Fuller's claim is entirely unjustifible: if his claim was valid he would undoubtedly be an infringer.

In his claim, as he may rightfully make it, viz: To the mechanism attaching the old and unpatentable devices to a sewing machine so that they may be operated by the old and unpatentable power of the needle-arm he does not of course, infringe Wheeler.

IV

The remaining, and most important question is, does Yentzer's device infringe that portion of Fuller's divice which is a valid patent: *i. e.* valid, both within the invention, and also the *claim*? And in view of what I have heretofore urged I shall treat the invention of Fuller as a combination of old devices, operated by an old power to produce a given result. Such, I consider to be the true scope of Fuller's patent.

1. The law which is applicable to such cases is thus stated in various ways: "Where the patent on which the

"plaintiff claims was issued for a new combination of old "parts, the rule requires him to show that the defendant "has used all the elements of his combination: as the "combination is the source of the thing patented, if the "defendant has used some of the parts only, omitting one "or more, he has not used the combination and there is "no infringement."

Abbotts U. S. Pract. 522

"A patent for a combination is not infringed unless "all the essential parts of it are substantially imitated."

Bell vs. Daniells 1 Fish. 372

"In the present improved state of mechanics, the "same elements of motion and the same powers must be "employed in almost all machines. The lever, the wheel "and the screw are powers well known, and if no person "could be entitled to a patent who used them in his ma-"chine, it would be in vain to seek for a patent."

"The material question, therefore is, not whether the "same elements of motion, or the same component parts "are used, but whether the given effect is produced sub-"stantially by the same mode of operation and the same "combination of powers in both machines."

Odiorne vs. Winkley 2nd Gallis. 51. 53.

"E. had a right to use any of the parts in G's. com-"bination, if he did not use the whole, and if he used all "the parts but one, and for that substituted another sub-"stantially different in its construction and operation,

"but serving the same purpose, he was not guilty of an "infringement."

Eames vs. Godfrey 1 Wall. 80.

"The *same* parts must be used in the *same* combina- "tion to make the defendants liable." Brooks vs. Bicknell 4 McLean, 74 ib. 373; Pitts vs. Wemple 6 McLean 558.

"A patent for a combination is not infringed by the "use of any part less than the whole of the combination."

Root vs. Ball 4 McLean 180.
Parker vs. Stiles 5 ib. 47.

"If the three elements are the same, but are not "connected and arranged the same, it is no infringement: "or if there are two of the three elements, and the third "element is new, it is not the same combination: it is "not the same combination if it is substantially different "from it in any of its parts."

Singer vs. Walmsley 1 Fish. 573.
Dodge vs. Card 2 Fish. 119.
Latta vs. Shawk 1 Fish. 470.
Lee vs. Blandy 2 ib. 93.

* * * "Where a combination consists of three "parts arranged in a particular manner with reference to "each other and to other parts of the machine or thing, "the use of any two of such parts only, or the two com- "bined with a third which is substantially different in "form or in the manner of its arrangement or connec- "tion with the others it is not an infringement."

Abbott's U. S. Pract. 552-553.

"To constitute an infringement the thing * * * "must be such as substantially to embody the patentees "mode of operation.

2

Having thus adduced the cardinal and fundamental principles which may furnish a guide in the decision of the controverted questions in this case, I now desire to submit a few extracts from the testimony of the experts introduced on both sides, premising however, that I do not attach so much importance to their opinions, as to the reasons they give therefor.

Daniel Barnum (complainant's expert) states the *essential* elements of Fuller's device to be "a plate carrying a point to be attached to the bed-plate of a sewing machine."

"An arm carrying a notch operated by the needle-arm." &c.

"Said notch being adjustable to and with the point "attached to the bed plate." "And a suitable spring "interposed between the bar and the notch (Ans. to Int. 13 Rec. p. 29.) Now it will be seen that he entirely omits the prominent essential element of the horizontal bar "G" carrying the markers.

By inspection of the model it will be seen that this is not only an essential element but that the device would be inoperative and worthless without it. That this

opinion was significant and made for an object, is clear.

Chapin, the expert of defendants thus defines the essential elements of Fuller's device: "The spring-arms "carrying the notches or blades: *the bar to which they* "*are attached:* the slotted bed plate supporting the "notches or points; and the horizontal bar attached to "the needle-arm for operating the spring-arms."

(Ans. to Cross-Int.35. p. 74.)

It will be thus seen that he includes this essential element of the needle-arm "G"

The solicitude of complainants to get rid of this horizontal bar "G" which they have made so prominent and useful in their model and specifications, may be seen in the examination of the witness Chapin which succeeds the above quotation: and that they entirely fail to get rid of mischievious element of their device is quite as obvious.

I invite the attention of the court to this attempt, and to its failure. I also desire to draw the attention of the court to the Model itself in confirmation of my view, that this arm "G" is one of the essential elements of Fuller's device.

Notwithstanding the fact that the expert Barnum did suppose that it required several elements to embody Fuller's device, I next find him omitting nearly all in order to comprise that machine.

Thus in his answer to Int. 16 (p. 29.) I find that he shears the invention of all but the point or blade attach-

ed to the bed-plate of a sewing machine, and to a notch operated by the needle-arm: or, as stated in his answer to cross Int. 3 (p. 36.) to markers for forming a crease in cloth on opposite sides thereof, one of them being attached to the bed-plate of the machine and the other to the moving part of the machine, and operated by it: or, as stated with great explicitness in his answer to Cross Int. 39. (p. 41.) "You may remove all the mechanical "parts * * * between the notch and point and the "place where the vibrating motion is obtained and substi- "tute therefor *entirely different mechanical parts* for pro- "ducing the vibrations, and you would retain the inven- "tion provided the under marker was attached so as to be "supported by the bed-plate of a sewing machine, and "the upper marker was operated by, and made to vibrate "simultaneously with the needle and thus to form a crease "parallel to the line of seam while being sewed by a sew- "ing machine for a preceeding tuck."

Let not this language be misunderstood: it is the carefully prepared idea of, not alone the expert but of the complainants as well: it is the pivotal idea of the complainant's claim: it constituted, in the court below, the web and woof of their counsel's arguments, as well as of their expert's testimony.

They, thus throw their machinery and attachment and adjustment to the winds: and fall back, and claim the idea, principle, *thing* of tuck creasing.

Whoever attempts to tuck crease, except upon the terms that he shall pay tribute to them, is an infringer.

Machines are on exhibition in this case, totally unlike Fuller's mechanism, and yet the markers of them are compelled to pay tribute to these complainants, or stand a lawsuit, because they crease by mechanism, however unlike Fuller's, both in form and in principle.

This broad claim of the principle or institution or *thing* of tuck creasng by mechanism I stoutly resist.

Chapin says (p. 60.) that,

"The distinct features of Fullers invention consists "in the elevated bar projecting out from the frame" (the bar "G") &c. "In the Yentzer patent there is no frame "work projected out from the presser foot, nor any "horizontal bar projecting out from the frame work" &c. "nor are there any spring arms" as in Fuller's device.

Again in p. 60.) he says the Yentzer patent is "different in the mode of construction and operating on "a different principle from the Fuller patent.

Also (p.60-61.) that the bar "G" is absolutely neces- "sary for tuck-marking" * * * "not one of the en- "umerated parts in the Fuller patent could be substitu- "ted by any one of the parts in the Yentzer patent with- "out invention or reconstruction, and that none of the "mechanism in the Yentzer device can be made to per- "form any functions in the Fuller patent without also " reconstruction or invention."

The reason why complainants have so earnestly attempted to get rid of the important arm "G" as an essential element in Fuller's device evidently is because it

is an essential element which Yentzer has not found it necessary to use, and by getting rid of it, complainants think they obtain an identity of essential elements in both Yentzer's and Fuller's devices. How they attempt to get rid of it, and how signally they fail (as I think) will fully appear in Cross Int. 40 and answer thereto of Chapin (on p. 74.)

The essential elements of Yentzer's device are summarized in the answer to Cross Int. 103 (p. 80.) as "A "two-part bed-plate adjustable relatively to itself: the "spring arm carrying a conical point: a slot in the bed-"plate to operate in and the seam-guide."

And such will be found to be the case, upon an inspection of the machine itself.

And that the essential elements of Fuller's are very different.

The alleged invention is described on the face of the letters patent, as "A new and useful improvement in "mechanism for marking cloth in sewing machines."

And in the specifications, as "certain new and useful "improvements in means for marking cloth in sewing "machines." No reference is made to existing mechanisms for like purposes or to the state of the art in any way.

The inventor then states with much amplitude of detail a description of his alleged invention.

The caption is predicated of "new and useful im-"provements in mechanism:" but his claims are for "for-"ming one or more creases in cloth by means of markers" &c.

This phrase is ambiguous, confused, uncertain and doubtful: A claim for "forming creases on cloth by "means of upper and lower markers" would certainly, if sustained, exclude all other inventors from trenching upon this monopolized ground by any kind of mechanism, how different soever from that of Fullers. It is simply a claim for a mode;—a method:—a principle;—an effect;—a result; and not for the mechanism or device itself, as the means of doing it.

Again, if Fuller, in his specification, as would seem to be the case, intended to claim to be the inventor of all the different parts of this complex piece of mechanism, his patent is void for the reasons, that all the material and essential principles and elements embodied in his mechanical device have long prior to his patent, been substantially embodied in various mechanical devices and contrivances: and his device is simply a pirating in its chief and vital parts of Wheeler's patent, of its markers, springs, plates and arms, and also in his mode of attachment.

It is likwise void for ambiguity and uncertainty as to what is new in his device, and as to what part he invented as an improvement of existing devices. He disclaims a *guide* only, and describes and claims all the other parts and the whole: not distinguishing his invention

or new improvements (if any) from existing devices excepting alone that all devices known to him, had sharp points as one marker which would penetrate the material: whereas his points were described as "thin, rounded "and blunt chisel forms."

And this form of a point for creasing cloth is substantially the same as that used long before by women by laying cloth over a notch or groove on a board or table, and creasing it with a "thin, rounded, blunt chisel formed stick or piece of wood."

1 Fish. Reps. 213, 11 Wall 541-2.

What Fuller has done is, the forming of a *combination* of his own, of old and well known devices not patentable.

Had he have been content to describe these several devices, or his change in their forms as entering into and forming parts of his combination and its application and have contented himself by a claim only for this *combination* his patent and claim would not be void.

On the contrary, he has omitted to claim his mechanical device as a *combination* or *in combination* with one exception, viz: that one of his markers "is connected "with the bed-plate of the machine and the other oper- "ates simultaneously with the vibrations of a needle in "a sewing machine."

2 Blatch. 240.
16 How. 480.
14 ib. 226.
1 Fish. 589.

11 Wend. 541, 552.
3 Fish. 640.
Curt. on Pat. sec. 277.

And by reference to the various machines manufactured by Fuller's licenses under his patent and paying royalty to him, it will be found, that in form of construction, mode of operation, adjustability and attachment they are substantially different from, and unlike Fuller's device, and they are, each and all, simple and possess practical utility, while complainant's possesses neither.

Upon as full an examination as I have been enabled to make—I have arrived at the conclusion, and through conviction—that complainant's patent is void, for reasons and views suggested, and others that may be.

But assuming—for further discussion—that it is valid for the true intent and purpose for which it was granted. I find its true meaning, intent and purpose to be to secure to the complainant his peculiar mechanism or device, as a combination;—with separate adjustability of its several parts: and that it does not include, embrace or cover the forms of the markers—or the results attained by any form of markers—either in forming creases or marking lines.

If I have made a just analysis and reached a sound construction of complainant's patent—a proper conclusion of what are his rights under it. I now present the case of the defendants, and their rights under two pat-

ents to defendant Yentzer—from the same government, for "a new and improved sewing machine attachment" being a tuck marker—and for "a combined tucker, hemmer, seamer and edge-stitcher":—and the irreparable injury that complainant is seeking to commit to their rights and interests—by an injunction against the further prosecution of their legitimate business in the manufacture and sale of the devices secured to them under these patents, together with the destruction of all their tools dies, &c., for making them. They wholly deny infringing complainants patented rights, by the manufacture and sale of devices secured by their own patents. They deny wholly that they are manufacturing or selling devices at all similar, substantially or otherwise, to the device of complainant's patent. They wholly deny that they are manufacturing and selling any other device or devices, than those described in, and authorized and secured by said two letters patent to defendant Yentzer. The issue is presented broadly:—and the question is presented—whether the principles of equity will allow the complainant to drive a fair and legitimate competitor from competition in the market—or to annoy, harrass and consume his time and gains by litigation and expenses,—with a view to grasp a monopoly of the markets to himself.

I bring you here, [redacted] the defendants' Patent: you may examine and determine what description of mechanical device: and what *combination* of devices, are authorized and secured:—and I also present you the device made and sold by defendants: of which complaint is

made, many patents, include prior patentable devices or prior Patents. In such case the last patentee cannot use his emprovement without license from the first patentee, but defendants' device is not one of this kind.

Construe their patents; settle what manner of device is authorized: compare the device manufactured—with that authorized: and both with that secured by complainant's patent: and I feel most assured confidence, that your Honor will find, not only no grounds for the alledged infringements, but not the slightest foundation pretence to suspend and destroy the business and interests of my clients. This Tucker is an exceedingly simple device, consisting of a bed-plate having upon it a graduated scale, and in it a slot as an under-marker, an elastic metal Spring-arm carrying a sharp or rounded point, as an upper-marker: to the bed plate is attached, by a nut or screw another graduated plate, a guide plate, and an upright standard for attaching to the presser-foot of a sewing machine: and a strip along the bed-plate for smoothing down the cloth. The bed-plate spring-arm, and strip form one peice, and are adjusted together; sliding in a groove with reference to the needle and width of tuck: and are fastened and secured by the same nut and screw by which the presser-foot and graduated plate, are attached to the bed-plate. As I said, here is an exceedingly simple, tucker: easily adjusted, kept in order, and simple and sure in its operation; and very useful and valuable.

Again, while courts will give a liberal construction of a patent, favorable to the patentee, it must not be so liberal as to permit the inventor to couch his specifica-

tions and claims, in such ambiguous terms, that its claims may be expanded or contracted to suit the exigency.

Parker vs. Sears 1. Fish. R. 93.
Detmold vs. Reeves 1 Fish. R. 127.

And patents are to be construed with reference to the state of the art, at the time of invention.

Pitts vs. Wemple 2 Fish. R. 10.

But not to cover or retain to the inventor anything in common use, or a matter of common right—but only what he has himself created.

Wilnans vs. Denmead 15 How. R. 330.
Ames vs. Howard 1 Sumn. R. 482.
Ryan vs. Goodwin 3 Sumn. R. 514.
Danoll vs. Brown 1 Woodley & Min. R. 53.

The construction and interpretation of the specifications and claims—are for the court to make;—Experts are examined only to aid in interpreting the language of art.

Battin vs. Clayton 2 Whar. Dig. 409.
Parker vs. Hulme 1 Fish. R. 44.
Brooks vs. Jenkins 3 McLean R. 432.

In support of his bill, the complainant has introduced the affidavits of two experts—which are of an extraordinary character—while they seem also to be a stereotype, one of the other—and doubtless both, dictated by the same attorney.

These experts, not only swear that complainant was the first and original inventor of tuck markers—and that

all such markers made and sold in the United States were made under his patent—but they give a construction to his patents,—kindly relieving the court from that labor—and after describing the device covered by it, and defendant's device; then conclude by deciding that the two devices are substantially similar in principle of construction, mode of operation and result:—and one of them adds, that in his enlightened opinion and judgment, Yentzer's device is a palpable effort to evade complainant's letters patent.

Now, it would seem to me, your Honor, that if any force or effect is to be given to such affidavits, it can only be one of distrust in, disgust at, and contempt for, such impertinence. Witnesses may express opinions, as experts, as to the substantial identity or similarity of mechanical devices, and other matters of art or science. But it is for the court to construe the grant, determine what is included in, and covered by it,—and when reflections upon the conduct and motives of these defendants are demanded, to make them.

Of what I before remarked, I had reasons to believe was the fact, I here find the proof:—if these witnesses reflect the extent of complainant's claims under this patent. He claims, substantially, as a *result*—the "forming "a crease by means of markers,"—he claims to cover markers in the forms of a blade or point, sharp, dull or blunt, pencil, chalk or other pigment, and a notch, socket or slot, whether in, or filled with soft metal, leather or other elastic substance, or not: and all equivalent

forms and substances—when, by the use of them, on opposite sides of material—a crease can be made in cloth. Whatever may be the construction and arrangement of the parts, and the whole of a mechanical device, if it includes markers capable of producing a crease, as a result, its substantial identity of principle, mode of operation and result are fixed—in the opinions of these witnesses.

What then becomes of C. D. Wheeler's prior device which contained the point—a blunt, rounded point—carried by a spring-arm above the cloth—and his notch or socket in the bed-plate, filled with soft metal, with his other appendages and modes of attachment and adjustability? If complainant's experts be correct, complainant must either over turn and blot out Wheeler's prior device, or stand convicted of pirating it. For his markers and their parts, connections and combinations—and their mode of operation—resemble more and are substantially similar to Wheeler's, that they are to defendant's, and defendant's are much more like and similar to Wheeler's than to complainant's device, as a whole and in all its parts.

But besides these considerations, I produce the affidavits of four experts—practical patent solicitors—practical engineers, practical machinists, as well qualified, in every respect, as complainant's—who swear that these devices are not substantially similar in principle and mode of operation. And here I leave their opinions to be weighed by your Honor.

And I appeal to your Honor—the best qualified ex-

pert of them all—to examine the several parts, and the whole mechanical devices of C. D. Wheeler, the defendant Yentzer, and of the complainant and his several licensees; no two of which are alike in mechanical arrangement: and they say, the devices manufactured for Yentzer and those by complainant's licenses: do resemble Wheeler's device more than they do complainant's. And not only so, but take away from these patents, and from these devices, what was and is not patentable, nor covered by their patents, viz: notches and blades—points and sockets—slots, and their equivalents, together with spring arms, bed-plates, guides, graduated scales and metal strips, and what have they or either of them left, except his own particular form and arrangement of mechanism? And this is truly the status of these patentees before the court, and the sum, substance and extent of their respective rights under the law.

And that this is so; I now invite your honor's attention to the state of the art, at and before the date of complainant's patent. And first:

The invention of springs is older than your Honor's memory, and their common use in old fashioned stage coaches and gigs, exceeds the number of years of your Honor's life-time:—single, double, spiral, curved and straight: and they have continued to be applied to an almost endless variety of uses, for purposes of industries, convenience, ease and luxurious comfort.

They assist the busy hand of the manufacturer in his manipulations; they soften the jolts of your private car-

riage, the public vehicles and railway coaches, when you travel abroad, and when you return home, you rest your weary limbs upon elastic sofas or lounges, and sleep upon luxirous beds, supported by their yielding accomodations: and finally they lift for you the public or private offlcial seal from its die or counter, when markers are required for the authentication of business transactions. So much for claims of patents for springs.

Secondly: Of creasing and creasing devices. When creasing was introduced we know not, nor does the history of the arts inform us. It is enough for our purpose, to say, that the costumes of our great great grand mothers, exhibited for our amusement by our "Old Folks Concerts," show it to be older than complainant's patent, and in common use.

Mechanical devices, almost numberless, have been used for making creases, and in common use long before the date of complainant's patent: and in which were embraced and embodied, substantially, the forms and principles of the blade and point, with the groove, notch, slot, sink and counter sink, and used by drapers and tailors, milliners, shoemakers, blacksmiths, foundries and manufacturers in all kinds of metal, whitesmiths, jewellers, coppersmiths, stove makers, tinners, paper box manufacturers and machinists, and others too numerous to mention.

But I would particularly call your Honor's attention to the devices in common use for cutting and creasing paste board boxes, used in packing a variety of articles

in commerce and merchandise: and those used by tinware manufacturers, in creasing, bending and folding tin, zinc, iron, lead and other sheet metals. The principles of a blade and groove, or notch, are not only substantially, but technically and literally embodied in them, and they were made and are still manufactured at New Haven and Southington Conn. and almost every city, and were so made and used long prior to Wheeler's or complainant's patents.

Not only so: but the same principle was embodied in an English patent No 12.842, and granted to Robert Parnall, Nov. 13, 1849, and described fully in the Mechanics Magazine, in Vol. 52, page 397.

These experts are therefore mistaken in supposing there is identity in these unpatentable parts and features, or in their results.

Nor are they more correct in their *power* of a needle-bar. A power is not patentable. Neither a Watts nor a Fulton, could patent the power of water when expanded into steam—nor a Morse the lightning of heaven—though both have been harnessed and subjected to do man's labors through his mechanical devices.

O'Reilly vs Morse, 15 How. R. 62-620.

Bain vs. Morse, 6 West L. J. 392.

Bright, Fed. Dig. 609. Sect. 15.

Yet neither can be the subject of a private and exclusive property, such as is conferred in patent laws. Neither is that of the needle-bar, or that of a sewing machine itself.

There is, therefore, then, nothing left of the complainant's mechanism, but the forms and the arrangements of the several parts of his device, and its combination as a whole. But he has made no claim for a combination, and therefore his patent does not embrace or cover a combination. Had he claimed a combination of the particular mechanism therein described as a means of forming creases in cloth, his claim might have been sustained, and his combination been covered. But instead of doing so, he claims the "forming of one, two, or more creases in cloth, by means of markers on opposite sides of the cloth, one of which is connected with the bed of the machine, and the other operates simultaneously with vibrations of the needle in a sewing machine, whereby the crease or creases are formed in the cloth itself, parallel to the line of sewing." If this claim, in its literal and grammatical construction can be sustained, it not only covers every element, part and principle in Robert Parnall's English patent of 1849, and in C. D. Wheeler's American patent of February 14th, 1860, but I will venture the assertion, that no form of markers known to the art, and in common use, and no form of a mechanical device can be made, however unlike complainant's, but using markers on both sides of the cloth, and which, however attached to a sewing machine, or by whatever power operated, if in its operation it forms creases, simultaneously with the needle and parallel to the line of sewing, but would fall within this claim, and infringe this patent, in and by its results; though it might not in its mechanical contrivances. This is precisely what I think complainant intended to accomplish, by wording

and phrasing his claim, in such uncertain, dubious, ambiguous, and double meaning language.

And so, it is apparent, his experts understand it as covering all possible modes and their equivalents. With the clear and voluminous lights shed upon patent law, in the able criticisms of the profession and the courts: in the adjudicated cases, and the decisions of the commissioners of patents, can it be possible to sustain such claims, upon such specifications, as are found in complainant's patent?

FULLER vs. GOODRICH—ROSE PATENT—3RD CASE

In this case a patent was issued to James Wilcox assignee of Israel M. Rose, on the 22nd Sept. 1863 for an alledged invention of a new and useful improvement in Tucking device in sewing machines.

In the specifications it is called and denominated "improvements in mechanism as an attacment to sewing machines"—and after describing the parts—the while—its mode of action and result,and specifying the objection to existing devices, to the piercing of the cloth by the markers—or held to bear with constant pressure upon the cloth, so that the cloth was either injured by the large holes made by the pressing needle, or they were so small as to leave almost imperceptible marks—leaving it necessary,carefully to crimp and fold the cloth by traces of the holes, and then concludes by claiming:—

1. The mehanism described.

2. The devices or mechanism described—consisting of jaws arranged in pairs, closing and opening at regular intervals, to seize and release the cloth.

3. So combining the parts for marking tucks, as that the jaws are brought down in contact with—to impinge upon the cloth while yet open—and are closed by the resistance then offered to the further descent of the jaws.

4. Combining with the jaws—so acting—a metal strip, arranged in line parallel with the feed, and operating in conjunction with the jaws.

These claims seem full and legitimate—being two for the particular mechanism, and as arranged; and two for combinations.

But the complainant, upon examining this device; and finding his own claims, broad as he had made them—would not cause a device with markers on the upper side, alone, of the cloth—seems to have conceived the idea, that he could cover the remainder of the range of tuck-markers, and tucking devices, by purchasing this patent, amending its specifications and enlarging its claims. He accordingly followed it through mesne assignments and purchased it. He then surrendered it for alledged and inadvertent errors and mistakes—amended the specifications—and changed and doubled the number of claims: and it was so re-issued to complainant. And in it, he claims, in the 1st and 4th, the mechanism, as in the 1st and 2nd of the original; the 3rd and 5th are

combinations, a little enlarged to embrace the jointed lever, more than one bed-plate, but otherwise the 3rd and 4th of the original claims.

The 2nd is a sweeping claim, being for "the *method* of nipping or pinching the fabric, to form ridges or creases thereon, as aforesaid, by means of jaws, opened and closed, at intervals, to seize and pinch the fabric when at rest, and then release it, as the same is moved along intermittently by a suitable feeding mechanism." This claim is not good.

The 6th is a claim for adjustability of the whole with its connected parts, in relation to the needle of a sewing machine and operated by it. This is substantially a claim to the adjustability of the Wheeler patent.

The 7th is a simple claim for a spring.

Wheeler's and Fuller's own patents, both had the same spring, for the same purpose; and it has been, as stated, in use, beyond memory of man.

The 8th is a combination of the lever and spring *with a tucker marker*, having upper and under parts connected, and together adjustable.

This is substantially, I might say, literally Wheeler's device. These are the claims.

And among them, I object totally to the 2nd, 6th, 7th and 8th, the precise number added in this re-issue.

As to the 6th claim, seems to me to be sufficient to

exhibit to the court, a certified model, as I now do, of Wheeler's device. It has every element and principle of connection of upper and lower parts, of the adjustability of the whole, claimed here.

Need I do, or say more, as to this claim?

As to the 8th for a "*combination*" of the "lever and spring with a tuck marker," we have another attempt, by a sweeping claim, to appropriate all levers and springs, "with tuck markers," and forestall competition in the use of these common devices in this connection.

Unfortunately for complainant, they are found in this connection and use, in the prior patent of Wheeler, of February 14th, 1860, and in his own of June 5th, 1860, as combinations in tuck markers.

Had complainant contented himself with a claim to the combination, form and arrangement of them as made in his device herein as a whole, it might have narrowed the question down to the validity of a claim to his own combination in his peculiar mechanism. Even this is not sustainable, as it had been previously made by himself and Wheeler, and was, therefore, not *new*.

But the objection to the claim, does not rest alone on this narrow foundation. His claim is broader and embraces in its phraseology all levers and springs in connection "with a tuck marker," *i. e.* all or any "tuck marker."

What I said in the first case in relation to springs—

blades, notches, points, sockets and slots—will apply to levers and springs in this case. Levers are as old as the human family and animated nature. They were in use in various forms as mechanical devices at the building of the Temple of Belus—before the confusion of tongues—when the walls and hanging-Gardens of Babylon were built—the Pyramids of Egypt—the Temple of Dagon overthrown by Sampson—the Temple of the Lord God of Jerusalem—the Colossus of Rhodes—and the Coliseum in Rome.

Nor need I say more, to show that a question about levers, cannot be set up or claimed under this patent—in combination or otherwise: and springs are in the same category.

In the case against Yentzer and Scates under this re-issued Rose patent device—looking into the experts affidavits filed by complainant in support of his bill, and motion for an injunction—I find the grounds upon which he complains of an infringement, are—first the connection of the upper and lower parts of the device in combination as a whole with reference to the adjustability of the markers to the needle in a sewing machine—and second for lifting the upper marker from the cloth. Wheeler's patent as I have shown was for a device identical in both these respects. If any one can complain, it is Wheeler—not Fuller under this patent—and Wheeler's right of action would cover the identical same grounds against Fuller, as against defendants. But I show further, that if such a connection, combination, and adjus-

tability, and spring-arm were patentable at the time—Wheeler's patent issued: being in, and parts of his mechanical device, and he making no claim to them for and in his patent—they thereby would become and did become the right and property of the public, and free and open to the use of everybody.

Batten vs Taggart 2. Wall, Jr. C. C. 101.

The identity or diversity of these two mechanical devices, depends, not on the employment of the same elements or powers of mechanics, but upon the producing of the given effect by the same mode of operation, or the same combination of powers—and these were substantially the same here with Wheeler's.

Odiorne vs. Winkley 2 Gall. R. 51.
Evans vs. Eaton 3 Wash. C. C. R. 443.

Besides, and in addition to this, complainant embraced in his own device, patented June 5, 1860—the same springs carrying and lifting his upper markers in the same manner, and made no claim for the springs—which he is now claiming under a patent issued Sept. 22, 1863, without such claim.

In the case against H. B. Goodrich, under the reissued Rose patent—the Bill does not allege any specified manner of infringement. I again look into the affidavits of his experts, filed herein—to find the particulars of his complaint.

In the bill of particulars furnished by these experts,

I find an enumeration of the things covered and secured by it. They are:

1. A pair of serrated jaws, arranged in a vertical position. 2. A *method* of *nipping* or *pinching* to form creases by means of jaws, opened and closed at intervals. 3. In combination, a spring for lifting the upper part of the creasing device from the cloth. 4. In combination, a jointed lever to which is attached one of the jaws. 5. Connection of upper and lower parts, and all its parts adjustable together with relation to the needle. 6. Combination of the whole into one mechanism.

These two experts—and again in stereotype phrase throughout, as if drawn up by counsel for them—having settled what the patent covers and contains—proceed to make up a list of infringing features in defendant's device, viz:

1. The pinching jaws or surfaces, arranged horizontally, instead of vertically—and one under and the other above the cloth, instead of both being above it, as in complainant's—and with the addition of a thrust or folding finger, which forces the cloth between the pinching surfaces; the *inside*—as they call it—jaw, rests flat on the bed-plate—while the *outside* jaw is attached to a jointed lever—and the only difference between the two devices is, that defendant has simply laid complainant's *jaws* down on their sides and makes the pinch horizontal instead of vertically, which makes the addition of the folding finger necessary—all which, in Mr. Smith's,

the expert's opinion, is a very palpable attempt to evade complainant's improvement.. 2. A coil-spring to carry the upper marker from the cloth, and allow the *jaws* to open, instead of the flat spring, and that one is a mechanical equivalent for the other. 3. A jointed lever, to which one marker is attached, in combination with a creasing device, precisely as in complainant's device. 4. The connection of upper and lower parts, with all its parts connected and adjustable together with reference to the needle—and 5th, a combination of all the previous features in one mechanism.

In all these enumerated features, there is no substantial difference—but are substantially identical in construction, mode of operation, principle and result.

Four experts—viz: Mr. Chapin, Brown, Sherbune and Cubley, say they are not. So much for expert opinions.

But it may be well to examine a little into and look at these *features* that are said to be identical, and mechanical equivalents. Is a common black-smith sledge or hammer when struck upon a fold of hot or cold iron, lying upon the surface of an anvil—to be named and called a serrated "jaw," and is the anvil another "jaw'¸? and is the good old process, once called and known as forging—improved in modern art into a process or "*method* of nipping and pinching"? Indeed the world moves—and the arts or experts are progressive and move with it.

Why, [redacted], look at this device of H. G. Goodrich. You can find in this so-called "pinching" part of it, nothing but a smooth faced hammer, and a smooth plate, and the "pinching" operation is simply the blows of a blacksmith upon his metal lying near the edge of his anvil, and this "thursting" or "folding finger" is but simply the other arm or hand of the smith to put and keep his metal in position to be creased, bent and "pinched" or "nipped" by means of "jaws." Surely, sir, experts are convenient things to have, as well as patent "methods." The jointed spring levers attached to the burly shoulders of our modern Vulcans, must give way to the modern patent "method" of creasing material "by means of pinching and nipping" the same by "jaws attached to jointed levers"—and pay royalty to Mr. Fuller.

It would seem, [redacted], that Mr. Fuller is seriously endeavoring to secure a patented, exclusive right and claim to a method—and to serrated jaws attached to and operated by jointed levers.

Let us examine this a little more in detail. When were pincers, nippers and pliers, operated by jointed and plain levers—invented and created or made? Your religious creed, [redacted], and mine, taught us to believe that in six days God created the heavens, and the earth and the seas, all animated nature—uttering words of creative power. "Let there be light" and light was. The last of God's creation was man, and of the dust of the ground, and woman, out of man's rib. And God breathed into man's nostrils the breath of life, and man became

a living soul" The only cretures so endowed with reason and a soul of endless life. A wise man has said there is no new thing under the sun—and that there are four things past finding out: the trail of a serpent upon a rock—the trail of a bird through the air—the track of a ship on the sea—and the ways of a man with a maid. Mankind are multiplied by procreation, not by invention or construction in the sense of the patent law—which assumes for its purposes, that *new* things may be discovered, invented and constructed. Can you, [redacted], even in the liberal sense of the patent law—call that a *new* invention—and there must be *novelty*—which merely copies the forms of nature—and embodies only the principles embraced in a part or the whole of men, animals, fowls, fishes or insects. You have, doubtless, [redacted], often seen a large insect called a beetle, whose forceps suggested the construction of ice-tongs in common use. Look [redacted], at my digits—and you see the first creasing device ever formed, and the first "method of forming creases by means of pinching or nipping" with serrated jaws—the cuticle—operating by jointed levers: and no doubt used in creasing and tucking the first fig-leaf mantle. Look, [redacted] at the monkey's hand—the elephant's trunk—the mouth of the shark, the crockodile or alligator—the beak of the eagle, or the bill of the duck—or indeed, any animal, bird or fish, and you have before you these jaws, nippers and pointed levers claimed by this complainant.

Then turn you, [redacted] to the cordwainers, smiths, tailors, tinners and the whole list of manufacturers—and

you find in almost endless variety, devices embodying the pridciples of construction, modes of operation, effects and results here claimed. The gardner must give up his hedge-shears, and with the tailor, your wife and daughter, must surrender their scissors with the barber to Mr. Fuller.

Neither your clerk, nor your commissioners, notaries and others, could keep the springs to lift the official seal from its die. But most distressing and lamentable of all, we must all pay royalty to Mr. Fuller for the use of our jaws serrated teeth pinching and nipping our tough steaks with jointed levers. Such must be life under such patent claims—if it is once settled that copying nature's handy-work will make mechanical work patentable and include and cover them.

But I deny this soft impeachment that the defendant has made a very palpable attempt to evade complainant's device.

Now, in no part of complainant's device is there anything *new* or *novel*, except in *combination* and arrangement of old and known devices in common use. And where the novelty consists *only* in such *combination*—the patentee cannot invoke the doctrine of equivalents against *other* combinations of the same devices, and much less can he invoke that doctrine for equivalents of such old devices—as stated by the expert in this case.

Earl vs. Brown, 2 Wall. R. 320.
Burr vs. Duryee 1 Wall. R. 531.
Stone vs. Sprague 1 Story R. 270.

McCormick vs. Talcott 20 How. R. 403 6
McLean R. 539.
Pitts vs. Wemple 6 McLean R. 558.
Lee vs. Blandy 2 Fish R. 89.
Carr vs. Rice 4 Bl. C. C. R. sec 1 Fish R. 198

and where, as here, a party makes an improvement in an existing machine or device, or if he invents a *new* machine, or device—his patent should not be for *a method*—but for his machine, device or improvement.

Barrett vs Hall 1. Mas R. 447.
Ransom vs New York. 1. Fish R. 252.
Wyeth vs Stone. 1. Story R. 274.
Root vs Ball 4. McLean R. 177.

The fact that old instruments, placed in new and different organization, thereby produce different results, or the same results by a new and different mode of operation—does not present a newly organized mechanism producing the same result, from being patentable.

Clark patent Steam and Fire Regulator Co. vs Copeland 2. Fish R 221.

This is strictly true of defendant's device, in which is combined also a *newly* invented *folding-finger*. Nor will an injunction be granted—where, as in all these cases, the defendants, have patents for the same, or like inventions, and which are *prima facie* valid.

Sargent vs. Carter. 1. Fish. R. 277.

We see, furthermore, that the spring introduced

by Wheeler and Fuller, in his own patent of 1860, and in combination, also, in both, for lifting one of the markers, was also introduced into the devices of lifting the chisel, &c., in the mitering machine of John Andrews, in 1838, and of A. Bailey, in 1840; besides their common use in office devices for lifting the seal, automatically. And can Mr. Fuller, come forward in 1868, and claim and appropriate to his exclusive use, such a device, under such circumstances and uses of them in so many forms, modes, and in such endless variety of devices?

I can but believe and say that his claims, in these respects are simply absurd, groundless and void.

Nor can his combinations themselves be sustained; being copied from Wheeler and others, beyond his own peculiar mechanism; and for this Wheeler might have maintained an action, had he claimed it, and his claim been allowed.

I incorporate Judge Drummond's decision in the cases, as a part of my argument, believing it to contain a sound, common sense, as well as legal view and conclusion from adjudicated principles.

OPINION BY JUDGE DRUMMOND.

"These three cases were argued upon the motion for a preliminary injunction and I then declined to issue the injunction. They afterwards went to proofs and were argued upon final hearing, and having given them all the consideration which I have been able, in the midst of

other engagements, I remain substantially of the same opinion as when the motion for an injunction was argued, having come to the conclusion that the plaintiffs are not entitled to the relief they ask. The cases are by no means free from difficulty, but I will state the reasons why I have come to this conclusion.

I have no doubt of the validity of the two patents under which the plaintiffs claim: the first the patent of Fuller issued in 1860, and the other, what is called the Rose patent, issued in September, 1863, and re-issued in December, 1868, and of which Fuller is the assignee. The original patent of Fuller so far as it is material to consider it in connection with the questions involved in this case, was for a device of creasing and tucking cloth by means of a notch and blade. Here is the original device of Fuller (indicating):–it was constructed in such a way as to be attached to the bed-plate of the sewing machine, and the special device by which the creasing was performed was operated by means of the needle bar. The notch might be above or below. The result was of course substantially the same, and it could be arranged in front of the needle or behind it according to the function that it was required to perform.

The first question to be determined is: What is the extent of the invention of Fuller; He did not invent the notch and blade; that was an old device: nor springs they also where old.

All that he invented was the application of the notch and blade, the springs, and the various other parts of the

mechanism to the sewing machine. He certainly could not claim the power of the needle-bar in all its various applications.

All that he could claim, and I think all his patent properly construed can be considered to cover, is the particular device which he adapted in its application to the bed-plate of the sewing machine, and to the needle-bar. Otherwise we would have to hold that whatever springs or the notch and blade were applied to the needle-bar, or any other old appliance was taken by which the power of the needle-bar was used in the construction and operation of a creaser, his device would cover it. That, certainly, cannot be the proper construction of his invention. It is only the special mechanism which he has devised in its application to the needle-bar and the other parts of the sewing machine by which the result was obtained. The difficulty arises in the application of the invention. It is natural always, where inventors have discovered some special device or mechanism by which a useful result is obtained, and in the progress of the art various modifications are made, or new ones are invented, which produce the same result in greater or less perfection, to attempt to bring all subsequent discoveries within the scope of their device. It is perfectly right, where any device is subsequently used which may be said fairly to come within the principle of the original invention, that the party should be protected, but it would be wrong to stretch an invention beyond the legitimate bounds of the discovery, so as to exclude all other inventions within the same field of operations. For instance, in this case,

it would be obviously an unsound doctrine to hold that no one else could take the notch and blade, or springs in whatsoever form they might be used and apply them to the bed-plate and to the needle-arm of a sewing machine.

Wherever any other person subsequently takes what may be substantially the same device or the same mechanism and attempts to apply it to the needle-bar and to the bed-plate of a sewing machine he may be said to be within the invention which Fuller first gave to the world.

As I understand the views of the plaintiffs, there is effort in this case to bring within the scope of Fuller's device what is not legitimately within the true boundries of that discovery, because we have to adopt substantially that rule in order to sustain the view of plaintiff's counsel, and to say that no one else could take the springs or apply the power of the needle-bar, or attach a form of notch and blade for creasing to the bed-plate without infringing Fuller's device.

So in relation to the Rose patent, of which Fuller is the assignee, and the validity of which of course he cannot question, and the value of which is not controverted.

It is admitted that Fuller's invention does not bring within its scope all forms of tuck creasers when applied to the needle-bar and to the bed-plate of the sewing machine; otherwise Rose's invention must fall. But the ground upon which that can stand is, that it is substan-

tially a different device. In Fuller's mechanism the act of creasing is performed as has been stated, and a model of which is before me.

Under the Rose patent, and by the mechanism which he devised for creasing, there is a different arrangement of the various parts. There is no notch and blade as in Fuller's patent, but there are springs. Here is a model of the Rose device (indicating). It is attached to the bed-plate of the sewing machine It is opperated by the power of the needle-bar. There is a spring attached to a staff and another which form together the jaws, which pinch the cloth in this way (indicating) as it passes through the sewing machine.

This presses the upper spring, brings the jaws together and the movement of the needle-bar down, places the jaws upon the cloth which passes between them and an attachment of the bed-plate. It makes a crease in this way upon the cloth; and it is said to have an advantage over Fuller's device, in that it does not perforate or destroy or even impair the textúre of the cloth.

Now the same principle I think must be considered applicable to the device of Rose as to that of Fuller, namely: he must be confined to tho special mechanism which he has invented and which he attaches to the sewing machine, and by means of which he performs a a crease on the cloth, and thus enables the operator to make the tuck.

It will be observed that Rose attached his device to

the bed-plate of the sewing machine and operated it by means of the needle-bar as Fuller had done: and there was nothing in Fuller's to prevent the operation of the Rose device.

Now that being so, it simply becomes a question when one uses any particular form of mechanism, whether or not, so far as these two patents are concerned, it comes within either of them. The theory is to bring all other forms of mechanism by which a crease is made and a tuck formed within these two inventions of Fuller and Rose; and it is said these have been so far the only two known methods of forming the crease.

Everything that is legitimately within them is of course within the invention of these two patentees; but it cannot be said that because they form the crease by the notch and blade and by the pinchers, that no one else can form a crease by some other device different from that of Fuller or of Rose.

In other words, that they have patented a result or an effect, and not the particular form of mechanism whice they have set forth in their specifications.

If this is the true construction of these patents, then we shall not have so much difficulty in determining whether or not the defendants have infringed the two devices invented by Fuller and Rose.

To take the first. The ground assumed by the plaintiffs is that the tuck creasers manufactured by Yentzer and Scates infringe the first claim of Fuller.

The first claim of Fuller is:

"The forming of one, two or more creases in cloth by means of markers on opposite sides of the cloth, which markers are the notch and blade or the notch and point, one connected with the bed of the machine, and the other operated simultaneously with the vibrations of the needle-bar in a sewing machine."

As I have said the notch and blade are old: the springs are old.

It may be true (it is not necessary to controvert it in this case) that Fuller was the first person to apply the notch and blade and springs to a sewing machine so as to form a crease, but I think that no one can take something old and apply it in a new way or a new form so as to produce a particular result, and be protected beyond the particular way or form or device, and the application which he has made.

Otherwise, as I have already said, any one could take an old device and make a new application of it and prevent all other persons from taking the same and making another and different application by which a like result is brought about. The question is whether Yentzer and Scates have done that. Now here is the model of the Fuller patent (indicating.) Here is one form of the Yentzer device and a tucker which they have manufactured. Here is the spring and the power of the needle-bar applied to the spring. Here is (if you choose to call it so) the notch and blade attached to the bed-plate.

The third suit is by Fuller as the assignee of the Rose patent against Goodrich, and it is alleged that Goodrich infringes the first, second, fifth, sixth and eighth claims in the Rose patent.

There seems to be, I would remark, in forming the claims under the Rose patent a disposition to expand them unnecessarily. For instance, the first and second claims are substantially the same; one, to be sure, speaks of the mechanism by which the crease is formed, and the other of the method of pinching the fabrics by which the crease is formed, but of course they resolve themselves into substantially the same thing: The first claim is: "The mechanism substantially as herein described for forming a ridge or ridges on fabrics to be afterward folded in the line of such ridges." That is this device (a model of which I now hold in my hand) the mechanism substantially as it exists here.

The second claim is the method of nipping or pinching the fabrics to form ridges or creases thereon, by means of jaws opened and closed at intervals to seize and pinch the fabric when at rest, and then release it as the same is moved along by the feed in the sewing machine. But still it means method produced or seen in this form of mechanism which is referred to in the first claim, and the only difference, therefore, between the first and second claim is the one speaks of the device as the mechanism, and the other the method by which that mechanism produces the crease.

The fifth claim is the combination of the creasing de-

vice or devices of the tuck-marker with the jointed lever substantially as and for the purpose set forth.

The sixth claim I have already referred to and considered.

The eight claim is the combination of the lever and spring with the tuck-marker, having upper and under parts connected and together adjustible as specified substantially and for the purpose set forth.

Now it is claimed on the part of the plaintiffs that this form of device used by Goodrich is an infringment, because it is said it is substantially this device of Rose (indicating) and that the crease is formed in substantially the same way and that the parts are adjustable in the same manner.

That is to say that the mechanism of the part is the same, because as I have said, that, I consider an indespensable element in the true construction of the Rose patent. I do not so regard it. Limiting the Rose patent to the substantial form of mechanism which he described and the manner in which it operates and is attached to the bedplate of a sewing machine and the needle bar, I think there is a substantial difference, such a difference between these two devices as is within the true construction of the patent law, and to hold otherwise is to leave subsequent inventors within very narrow bounds in the same common field of discovery, and would, therefore, be attended with very serious consequences.

If in any part of the mechanism of Fuller or of Rose there was some great novel principle of discovery which no one else could use without infringing that part, then it might be said that these cases of the defendant were fairly within its operation, but that would bring it within the principle, for example, of Howe's discovery in relation to the operation of the needle and of Wilson's feeding device. There is something connected with Howe's discovery which no one else can use without our saying at once that no matter in how different a form we put it, still Howe's invention is there. So in relation to the feeding device of Wilson. No matter how much you may change it or modify it, still it is Wilson's device.

If that principle were applicable to these cases then I should have no hesitation in holding there was no infringement.

There are two modes of construing the patent law, and it may be said, perhaps without any disrespect, that there are some judges who adopt one mode and some another. There those who are inclined to extend, beyond legitimate boundaries, the invention of the patentee. There are others who restrict it within somewhat narrow bounds, holding that the invention of the patentee must be limited by the particular mechanism and the application by which the result is attained, thus leaving the field of discovery open to all persons to explore it beyond the range of that particular mechanism and its application. I confess, myself, to be one of the latter class of judges, and hold that parties should be limited rather closely

within the claims of their patent and the description of the particular mechanism and the application which they have by which the result is produced. Of course a change of form will not change the principle.

A mechanical change does not prevent an infringement. In looking at Goodrich's device as I have said, it seems to me to be essentially different from the Rose patent, and therefore I hold that in that case, as in the others, there is no infringement. In these cases all the defendants, or Yentzer or Goodrich, under whom these defendants are manufacturing, claim to be protected by patents duly issued. Of course if these patents are for something which has been previously discovered and patented to other parties, the patent is no protection, but it is at least evidence of the view which the patent office has taken of the rights of the defendants."

WALTER B. SCATES,

Counsel for Defendants.